DEBASISH
COLLECTION

LECTURE-1
INTRODUCTION TO COMPUTERS

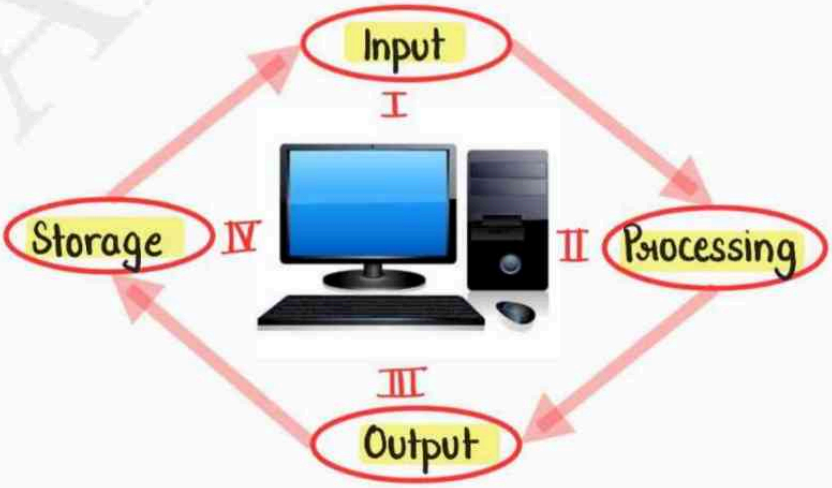
> A computer is a device that accepts information and manipulates it for some result based on a program or sequence of instructions on how the data is to be processed.

> It can perform all type of mathematical and logical operations.

> Characteristics of Computer :-

- Speed — of computer processor measured in Giga Hz (billions of cycles per second)
  - of computer measured in Hz < Mega Hz < Giga Hz (Mega Hz: millions of cycles per second)
- Accuracy : com
- Storage Capacity
- Reliability : is
- Versatility : Can be used for many purposes
- Diligence / Agility : Does not get tired & works 24*7
- Fast Retrieval : Generates output using input quickly

> Functions of Computer System :-



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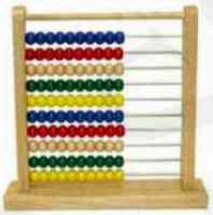
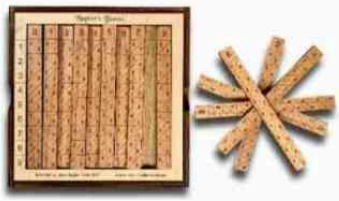
> Applications of Computer :-

1. Education
2. Medicine
3. Business
4. Science & Technology
5. Communication
6. Banking
7. Weather Forecasting
8. Entertainment
9. Defence
10. Research

> History of Computer :-

1. **Abacus** is calculating device, developed by Chinese in 1600s



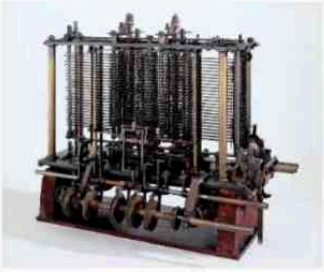


2. **Napier's bones** invented by John Napier in 1617

3. **Pascaline** – Ist Mechanical Calculator invented in 1642 by Blaise Pascal

4. **Difference engine** invented in 1822 by Charles Babbage

5. **Analytical Engine** invented in 1837 by Charles Babbage



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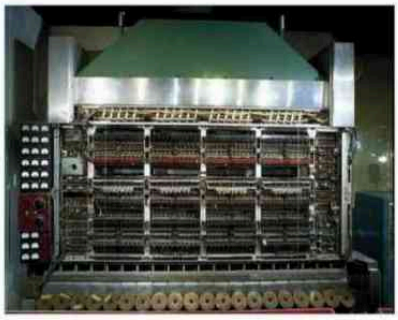
6. ENIAC - Ist fully electronic computer
   - Electronic Numerical Integrator & Computer
   - invented by J. Presper Eckert and John Mauchly in 1946



7. EDVAC - Electronic Discrete Variable Automation Computer
   - Automatic calculations (+, ×, −, ÷) and checking

8. UNIVAC - Universal Automatic Computer
   - First computer used for commercial purposes.
   - Designed by J. Presper Eckert and John Mauchly

> Generations of Computer :-

1. First Generation
   - Time - 1942-1955
   - Hardware - Vaccum Tubes
   - Memory - Magnetic Drums
   - Language - Machine Language
   - Examples - ENIAC, EDSAC, UNIVAC, EDVAC

Vaccum Tubes

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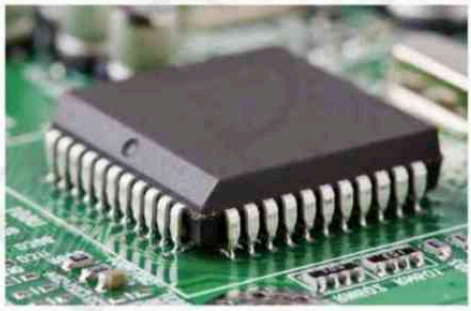
2. Second Generation

- Time- 1956-1964
- Hardware- Transistors
- Memory- Magnetic Tapes/Cores
- Language- Assembly language, High level language like FORTRAN, COBOL
- Examples- IBM 700/IBM 7030

Transistors

3. Third Generation

- Time- 1965-1975
- Hardware- Integrated Chips
- Memory- RAM and Disks
- Language- C, C++, Java, SQL
- Examples- IBM 360 etc



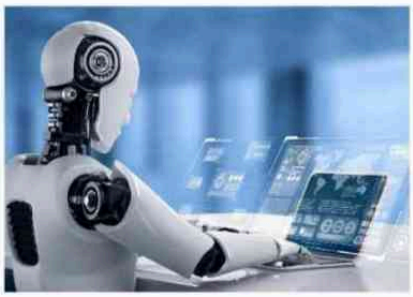
4. Fourth Generation

- LSI- Large scale integration
- VLSI- Very large scale integration

- Time- 1976-1989
- Hardware- LSI & VLSI
- Memory- All primary, secondary storage devices
- Language- SQL, ORACLE
- Example- All pcs & Desktops, CRAY-1 etc.

5. Fifth Generation

- Time- 1990- till date
- Hardware- ULSI → Ultra large scale integration
- Chief Development- Artificial Intelligence, Robotics, Nano Science, Optical fibre



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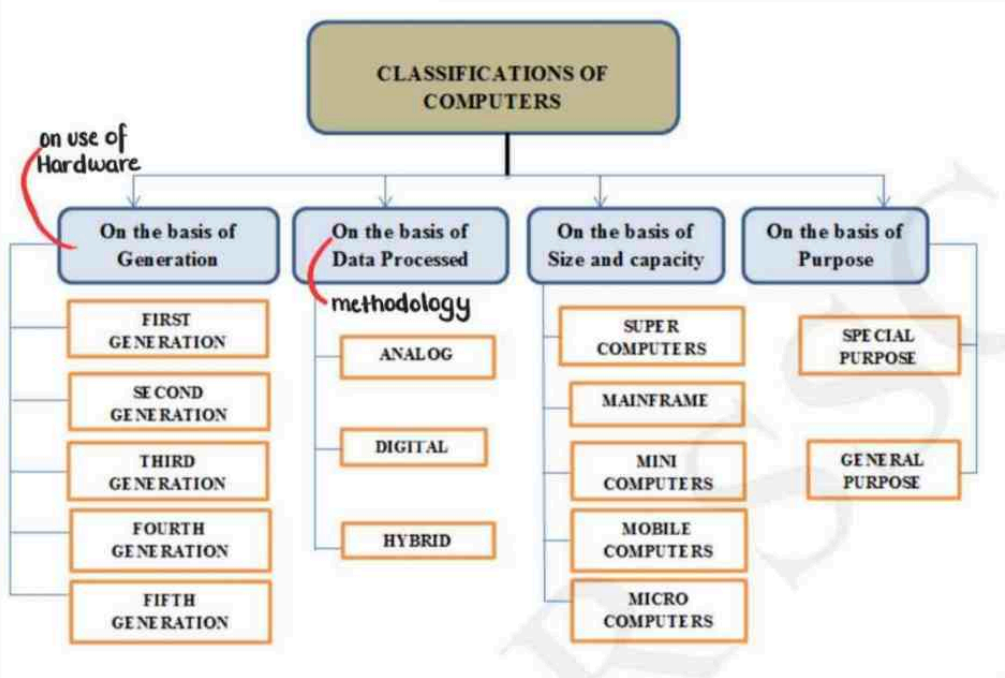
> Classification of Computers :-



> **Analog Computer** – Analog Machine was introduced by Lord Kelvin. In Analog computers numerical data are represented by measurable physical variables, such as electrical voltage, pressure, temperature etc.

> **Digital Computers** process information which is essentially in a binary or two state form, namely zero and one.
Binary digit - 0 and 1

> **Hybrid Computers** - The feature of analog and digital machines are combined to create a hybrid computer

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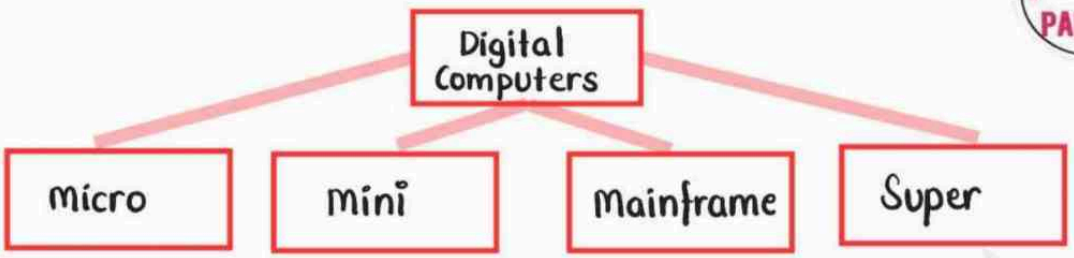

- **Micro computer** also called personal computer
  - These are single user and are general purpose computer that is designed for individual use.
  - It has a microprocessor as a central processing unit, memory, storage area, input unit and output unit
  - Eg- Laptops and desktop, PDA Personal digital Assistance
  - Laptop is also known as notebook

- **Mini Computer** are more powerful than micro computers
  - They are multiuser computers
  - It has higher memory, provide faster operating speeds and larger storage capacity than micro computer and used as server.
  - Used in: Process control-factories, Data Management - Hospitals, Communication Portals

- **Main-frame Computer** is different from micro and mini
  - It has very high memory and processing speed and used as server (can support thousands of users)
  - It is a high performance computer and is used for large scale computing purpose
  - Use: Railway Reservation

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- **Super Computer** is a different type of computer and can be use for complex type of applications
  - Uses- Scientific research, weather forcasting, weapon designing etc.

- India's Ist Super Computer- **PARAM 8000**
  - invenled by CDAC, Pune
- Ist Supercomputer developed by **Seymour Roger Cray**
- latest, the fastest supercomputer in India is the AI supercomputer is **AiRAWAT** → Artificial Intelligence Research Analytics & Knowledge dissemination Platform.
  - 75th Rank across world
- Computer Literacy Day- **2 December**
- First computer programme was developed by Lady Ada Augusta
- Speed of Super Computer measured in **FLOPS** → Floating Points operation per second
- Father of Super Computer— **Seymour Cray**
- **FORTRAN**- Formula Translation
- **COBOL**- Common Business Oriented Language
- **ALGIOL**- Algorithmic Language
- **SQL**- Structured Query Language
  - created for relational Database Management System
- **XML**- Extensible Markup language
- **HTML**- Hypertext Markup Language
  - Introduced by **Tim Berners Lee** — Father of HTML
  - language used to create web pages
- **C**- Dennis M Ritchie
- **JAVA**- James Gosling

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- C++ - Bjarne Stroustrup
- PHP - Rasmus Lerdorf
- PYTHON - Guido Van Rossum

Q-1 Which among the following generations of computer used the technology of transistors for the first time?

A Third → IC
B Second
C First → Vaccum Tubes
D Fourth → LSI / VLSI

Q-2 Full form of ASCII (standard system for code conversion)

A-2 American Standard Code for Information Interchange

Q-3 Which of the following is not a valid characteristic of a computer system?

1. IQ
2. Accountability
3. Versatility
4. Diligence

A. 2 and 3
B. 1 and 4
C. 3 and 4
D. 1 and 2

Q-4 Which among the following type of computer is also known as Notebook?

A. Micro Computer
B. Multi Core
C. Work Station
D. Laptop Computer

Q-5 Which was the first programmable general purpose computer in the world?

A. ENIAC
B. Napier's bones
C. Pascaline
D. Mark I

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Q-6 Who created Analytical Engine, one of the early computing devices?

A. John Napier
B. Herman Hollerith
C. Blaise Pascal
D. Charles Babbage

Q-7 'Computer is a dumb machine and it cannot do any work without instruction from the user' – this statement refers to which of the following computer characteristics?

A. No IQ
B. Diligence
C. No feeling
D. Versatility

Q-8 COBOL, FORTRAN and C are all _____ programming languages.

A. Procedure Oriented
B. Font Oriented
C. Object Oriented
D. Visual Basic

Q-9 'Java' is a programming language which was developed by__?

A. James Gosling
B. Jory Hamington
C. Jack Simplot
D. John Nauchly

Q-10 Which of the following function is not performed by a computer?

A. Inputting
B. Controlling
C. Processing
D. Outputting
E. Understanding

Q-11 Data processing means _____

A-11 Getting information for use

Q-12 Present generation computers use _____

A-12 ULSIC – Ultra Large Scale Integrated Circuit

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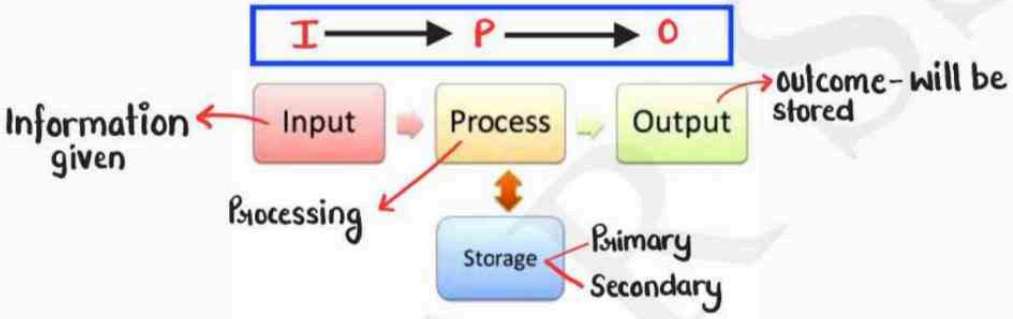
LECTURE- 2
ORGANISATION OF COMPUTER

> **Computer Organization** – The internal arrangement of different parts of a computer is known as Computer Organization.

> **Working principal of Computer :-**



1. Inputting
2. Storing
3. Processing
4. Outputting
5. Controlling

> **Components of Computer System :-**

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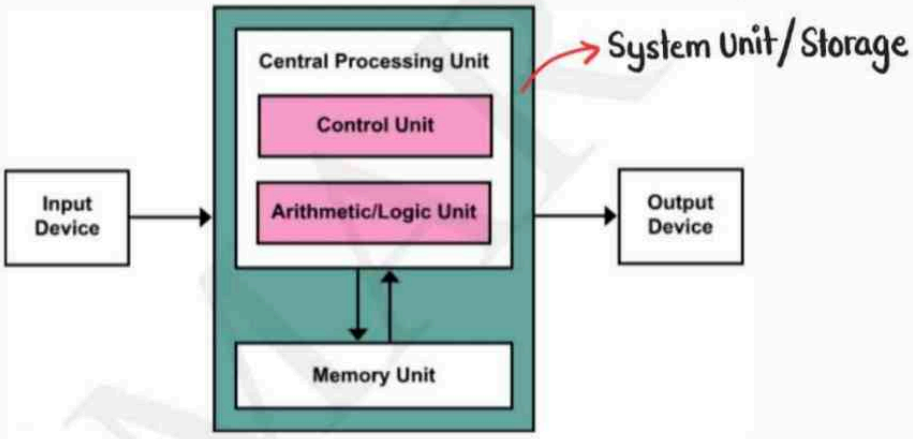
1. Input Unit
2. Storage Unit or memory unit
3. System Unit
   - (i) Mother Board
   - (ii) Central Processing Unit
   - (iii) Primary or Main Memory
4. Output Unit

Arithmetic & Logic Unit → ALU

(ii) Central Processing Unit → Control unit

(iii) Primary or Main Memory → Main memory/ Primary memory

> Mother Board



System Unit/ Storage

> Basic needs for computer –

Hardware

Physical devices – can be touched and are connected to internal or external part of computer

Software

Software is a set of informations that are to be designed for any instruction.

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Hardware - A computer's hardware consists of its physical parts including its internal pieces and connected external devices

Software is a set of instructions, data or programs used to operate computers and execute specific tasks. It is the opposite of hardware.

Input and Output Devices

An input device is a piece of hardware that allows a user to communicate with a computer or other digital system by translating user actions into electronic signals.

OMR - Optical mark reader/recognition

CD-Drive - Compact Disc

Other eg - Webcam, Trackball, Lightpen, Graphic Tablet, Touch Screen, Voice recognition devices, MICR → Magnetic Ink Character Recognition
↳ used in Cheque books

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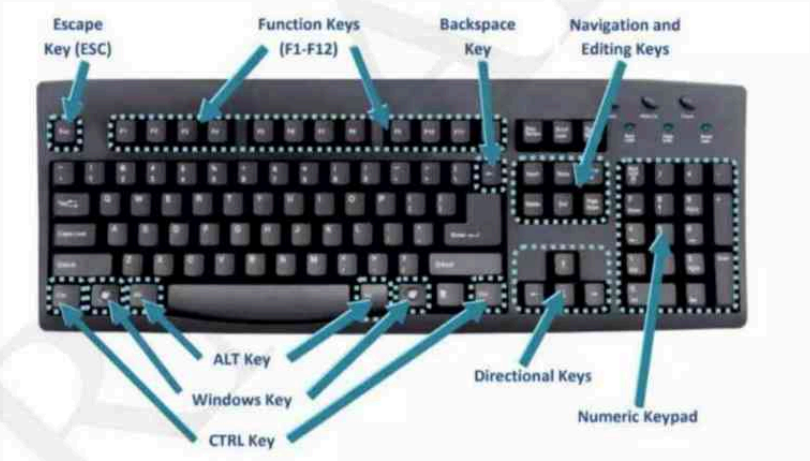
Mouse Types :

Keyboard

- Most common layout- QWERTY
- Function Keys- (F1 to F12) = 12
- Modifier Keys- Shift, Alt, Ctrl, Windows key = 4
  - to perform certain tasks
- Toggle keys- Caps Lock, Scroll Lock, Num Lock = 3



Scroll Lock key on a keyboard toggles between scrolling and non scrolling modes. When scroll is ON, the arrow keys will scroll the contents of a text window or worksheet. This allows you to navigate a document without accidentally scrolling or moving through the page.

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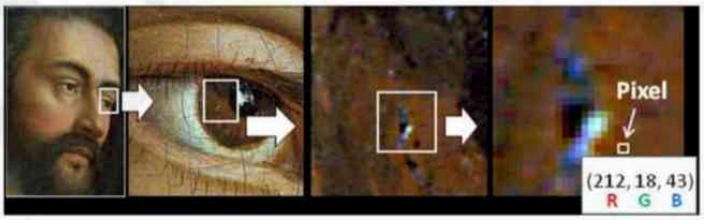
› **Output Device** is any piece of computer hardware that converts information or data into a human-perceptible form.
Other eg- Plotter, Touch screen, Projector, Speech Synthesizer
(Plotter → to print banners)

› **Monitor**
- The device mostly used for viewing output.
- Also called **visual Display Unit (VDU)**
- Monitor's clarity is based on its Resolution.
- Resolution is measured in **Dpi** (dots per inch)
- Each dot is called **pixel.** (smallest unit of image)



› **Types of Monitors** – After this TFT (Thin Film Transistor)

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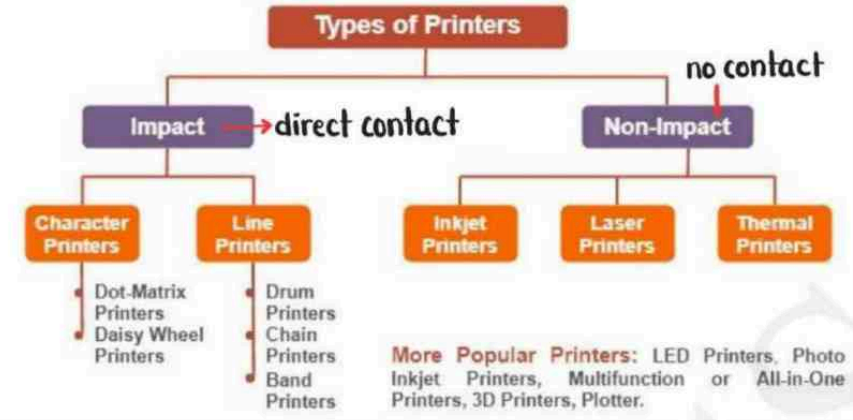
Printer



- **Character printers** are defined as impact printers that typically print only one character at a time
- **Dot Matrix printers** also known as **pin printers**.
  - These printers have **matrix of pins on their** print heads to create characters or graphics
  - They usually have **9 to 24 pins** in the print head
  - In this, print mechanism moves **both direction** (left to right and right to left) throughout the print line.
  - They are cheap and usually print **100-600 characters** per second.

- **Daisy Wheel Printers**
  - Are used to achieve the quality found with typewriters
  - Have **wheel / disc** that has print heads and the ends of these print heads have a **molded metal character**.

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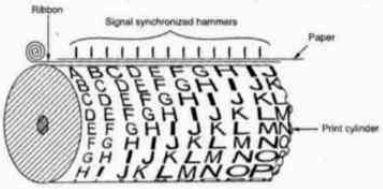
- When print command is given, printer rotates the disc with all its associated characters
- As soon as the desired character arrives at the correct print location, the hammer hits the disc and the corresponding character hits the ink ribbon to produce a character
- Have a speed of 25-55 characters per second.

Line Printers

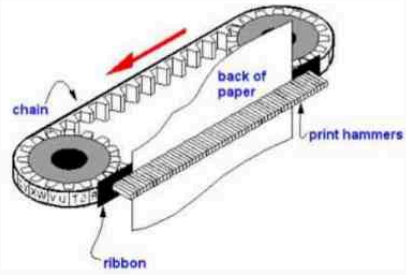
- Also called bar printers
- Usually print an entire line at a time
- Use multiple strokes of hammer
- Can print up to 6000 lines per minute

Drum Printers



- Consists of rotating cylindrical drum
- When command is given, the drum rotates, and when reaches desired character, the hammer quickly strikes the ink ribbon against the paper to print character.
- Printing speed - 300-2000 lines per minute
- Makes a lot of noise

Chain Printer



- Consists of a revolving chain with characters set on its surface.
- Have character set of 48, 64 or 96 characters

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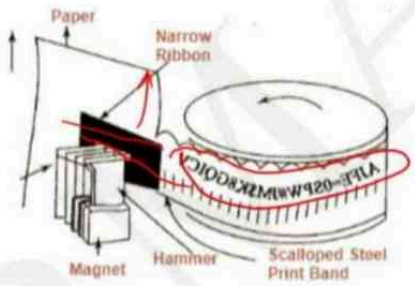
- Chain is connected using gears in such a way that it can rotate horizontally
- They are not compatible with printing graphics.
- Print 300-500 lines of characters per minute.
- Chain Printers also make a lot of noise.

Band Printers

- Also known as belt printers, almost identical to chain printer
- They use a steel band with a small number of hammers.
- Fonts, such as characters and time marks, are etched on the surface of a steel band.



Non-impact Printers

- They have no hammer to hit the print heads on ink ribbon.
- These types of printers do not even use ink ribbon to produce prints.
- They use technologies such as laser, electrostatic, xerographic, chemical, or inkjet.

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Inkjet Printers

- Are **non impact printers**
- They print by spraying a pattern of ink droplets on the paper with help of a nozzle or jet.
- A **nozzle has small holes** to eject small droplets of ink.
- They use special type of ink that usually contains **iron material.**
- Inkjet printers store ink in **cartridges.**
  - liquid ink

Laser Printer

- Are **non-impact printer**
- When command is given, the **laser beam produces a text or** image structure on a selenium -coated drum by controlling the electric charges.
- Once the drum is fully charged, it is rolled into a **toner (dry ink powder)** and the charged image particles pick up the toner.
- After that, toner is printed on paper using some heat and pressure. Once printed, additional amounts of toner are collected as well as electric charges are removed from the drum.
- They can produce extremely **high-resolution prints.**

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Thermal Printers

- They use a specific heat sensitive paper and they produce prints by pushing electrically heated pins onto the paper.
- Paper used in these printers has a special heat sensitive coating, it starts getting dark as it gets hot.
- Therefore, when hot pins are pushed onto paper, the area concerned becomes darker.

Devices that act as both input and output:-

1. Modem (modulator-Demodulator) → Analog signal ⇄ Digital Signal
2. Fax
3. Touch screen
4. Digital Camera
5. AT-Head Set

Q-1 Which among the following is incorrect about Laser Printers?

A. User laser lights for producing dots to form characters
B. Can print multiple copies at a time
C. Fast speed
D. Supports multiple fonts and sizes

Q-2 Which among the following devices is also known as VDU?

A. Printer
B. Scanner
C. Track Ball
D. Monitor

Q-3 _____ is a reading device that reads printed text by scanning it character by character.

A-3 Optical Character reader (OCR)

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Q-4 Which among the following statement is incorrect for input devices?

A. They are also called peripheral device.
B. Input devices accepts user data
C. Input devices helps computer in receiving data.
D. Optical Mark Reader is an input device.

Q-5 Which of the following is an example of the input device in a computer?

A. Touch Screen
B. Printer
C. Monitor
D. Speaker

Q-6 What type of device converts digital signals into a form that is intelligible to the user?

A. Keyboards
B. Storage Devices
C. Input devices
D. Output Devices

Q-7 Daisy wheel is a type of Impact printer.

Q-8 Which of the following is not a valid pair of input devices?

A. Light pen, Digital Camera
B. Scanner, Microphone
C. Track ball, Joy stick
D. Plotter, Mouse

Q-9 Which of the following produces the best quality graphics reproduction?

A. Laser Printer
B. Ink Jet Printer
C. Plotter
D. Dot Matrix Printer

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Q-10 What is required when more than one person uses a central computer at the same time?

A. Light Pen
B. Mouse
C. Digitizer
D. Terminal → Outstation

Q-11 Once you load the suitable program and provide required data, computer does not need human interventions. This feature is known as –

A. Accuracy
B. Reliability
C. Versatility
D. Automatic

Q-12 Optical input devices allow computers to use light as a source of input. which of the following is/are examples of optical input devices?

(i) Scanner
(ii) MICR

A. Only (i)
B. Neither (i) nor (ii)
C. only (ii)
D. Both (i) and (ii)

Q-13 Which of the following translates images of text, drawing and photos into digital form?

A. Digitizer
B. Modem
C. Scanner
D. Keyboard

Q-14 The higher the resolution of a monitor, the closer together are the pixels.

Q-15 Which of the following statements are correct :-

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1. Laser printers use dry ink.
2. Unlike dot matrix and inkjet printers, laser printers do not use ink when producing a document.
3. Laser printers use the property of static electricity.
4. Laser printers produce ozone gas and tiny toner particulates in the air.

A. 1, 2 and 3
C. 2, 3 and 4
B. 1, 3 and 4
D. 1 and 3

Q-16 Print quality of printer is given in _____ and printing speed is given in _____.

A-16 Dot Per Inch (DPI), Paper Per Minute (PPM)

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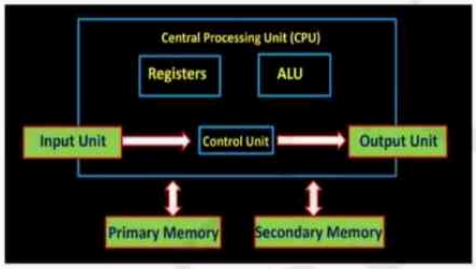
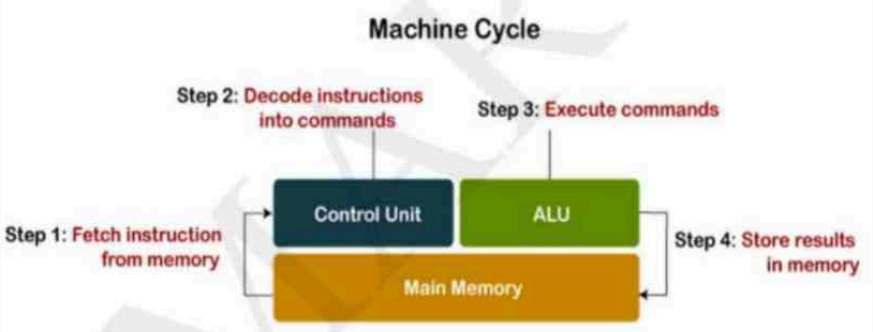
LECTURE-3
ORGANIZATION OF COMPUTER (PART-2)

> Components of Computer :-

1. Input Unit
2. Storage Unit
3. System Unit
   - (i) Mother board
   - (ii) Central Processing Unit
   - (iii) Memory Unit
4. Output Unit





> Major Components of CPU includes :-

1. **ALU**- Arithmetic / logic unit - performs arithmetic and logic operations on binary numbers.
2. **Control Unit (CU)** - circuitry within a computer's processor that directs operations. - Instructs the memory, logic unit
3. **Registers** - is used to accept, store and transfer data
   - temporary storage | size - 16, 32 and 64 bits
   - smallest and fastest memory
   - used to provide faster response to CPU
4. **Cache**
5. **Clock**

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Types of Registers:-

1. Current Instructions Register (CIR)- holds current information about to be executed.
2. Memory Address Registers (MAR)- stores address location of memory.
3. Program Counter (PC) - keeps record of the program that is being executed. Also consists of memory address of next instruction to be fetched.
4. Index registers - stores values and numbers and converts them into effective addresses. Also called base registers.
5. Memory buffer register (MBR)- store data content or memory commands used to write on the disk.
6. Stack Control registers (SCR) - set of location memory where data is stored and retrieved.
7. Accumulator Register - store information taken from memory.
8. Status |Flag Register - has bits that indicate outcome of operations
9. Memory Data Register (MDR) - temporarily stores data

- Cache - temporarily stores frequently accessed data and instructions to speed up processing of CPU.
  - improves performance by reducing the need to access main memory multiple times for the same data

- Cache Memory - small size chip based memory
  - fast, high performance & temporary memory
  - stores data that is used often
  - faster than main memory
  - Also called CPU memory

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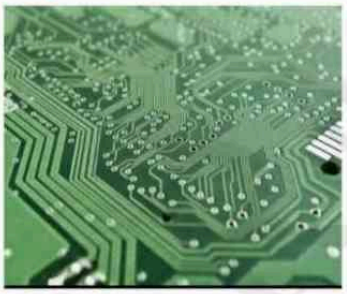
- **Clock** - sends regular electrical pulses to synchronize/update all components of the CPU.
  - Frequency of pulses known as clock speed
  - **Functions**
    - Synchronizing components
    - Measuring speed
    - Keeping time
    - Interrupting the CPU
  - Clock speed measured in hertz (Hz), Megahertz (MHz) or Gigahertz (GHz)

> **Hz** - One cycle per second
> **MHz** - One million ticks per second
> **GHz** - One billion ticks per second

- **Computer Bus**



  - computer system within a computer or between computers that transfers data between different components.
  - It reduces the number of "pathways" needed for communication b|w the components

- **Types of Buses:-**
  1. **Address Bus** – carries memory addresses from the processor to other components
  2. **Data Bus** – Carries data b|w the processor and other components
  3. **Control Bus** – Carries control signals from the processor to other components.

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Memory Measurements

data to store
↓
Storage
↓
Size

* Smallest unit of data - Bit (0,1)
4 Bit - 1 Nibble
8 Bit = 1 Byte

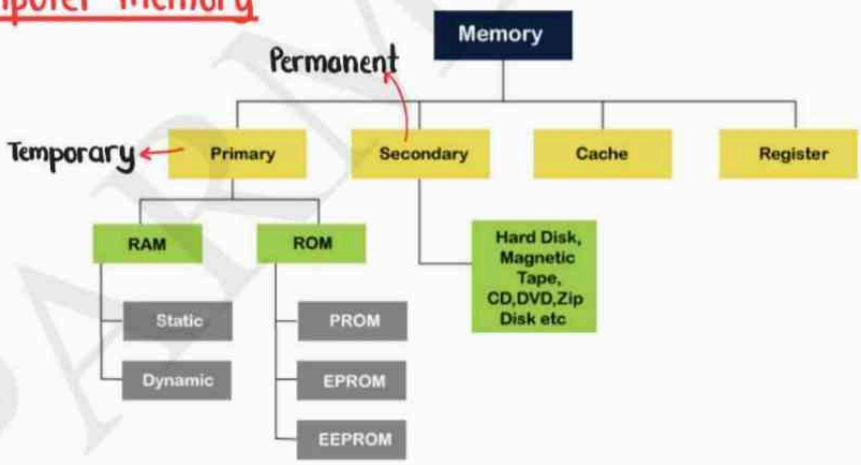
Memory unit	Description
Kilo Byte	1 KB = 1024 Bytes
Mega Byte	1 MB = 1024 KB
Giga Byte	1 GB = 1024 MB
Tera Byte	1 TB = 1024 GB
Peta Byte	1 PB = 1024 TB
Hexa Byte	1 EB = 1024 PB
Zetta Byte	1 ZB = 1024 EB
Yotta Byte	1 YB =1024 ZB
Bronto Byte	1 Bronto Byte = 1024 YB
Geop Byte	1 Geo Byte = 1024 Bronto Bytes

Parity Bit

- Check bit
- type of error-detecting code
- Used in digital communication, data storage, computing
- added to a string of binary code to detect and correct errors

Even Odd

Computer Memory



Primary Memory

- also called computer system's main memory
- Communicates directly with the CPU
- Stores data when processor is active to use it.
- Volatile memory - data can be lost if not saved (in case of a power cut)

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Primary Memory

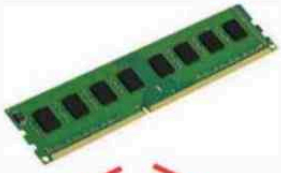
RAM

Random Access Memory

Accessed directly by CPU

Read/Write until machine is in use

Volatile



- DRAM
- SRAM

ROM

Read Only Memory

Used for permanent storage

Can only read stored data

Required to start or boot a computer

Non-Volatile Memory

- MROM
- PROM
- EPROM
- EEPROM
- Flash ROM

DRAM

- Dynamic Random-Access Memory
- Used for Dynamic storage of data
- Requires continuous refresh to retain data
- Slower than SRAM
- Combination of Capcitor and transistor

SRAM

- Static Random Access Memory
- Used for storing static data
- Data remains as long as the system has power supply
- Faster than DRAM
- Used as Cache memory

MPROM

- Masked Read Only Memory
- Oldest type of ROM
- Data is pre-configured by the integrated circuit manufacture
- Chip cannot be changed by the user

27

PROM
- Programmable Read Only Memory
- Type of digital ROM
- User can write information / program only once

EPROM
- Erasable and Programmable ROM
- Data can be erased & reprogrammed only once
- Non-Volatile
- Need to pass the ultraviolet light for 30-40min to erase data

EEPROM
- Electrically Erasable and Programmable ROM
- Used to erase stored data using high voltage electrical charge
- Non-volatile memory
- Data can be erased / reprogrammed upto 10 thousand times

Flash ROM
- Non Volatile
- Chip can be programmed in small units called Block / Sector
- A type of EEPROM
- Transfers data b/w computer and digital devices

› **Secondary Memory**
- Permanent Storage
- Also called external memory
- Eg- hard drives, USB, CDs, flash drive, DVDs

Hard Disk
- permanent storage device
- Non volatile
- Also called magnetic disc

uses flash memory and electronic circuits

- Two types - (i) Hard Disc Drive (HDD)
  (ii) Solid State Drive (SSD)

28

Types of interfaces of connecting hard disk :-

(i) Parallel Advanced Technology Attachment (PATA)
(ii) Serial Advanced Technology Attachment (SATA)
(iii) Small Computer System Interface (SCSI)
(iv) NVMe (Non-volatile Memory Express)

Floppy Disk

- Consists of thin, flexible magnetic coating discs
- Also called Floppy Diskette
  - Comes in 3 sizes
    - 8 inches
    - 5.25 inches
    - 3.5 inches
- Stores data upto 1.44 MB (in most cases)

CD (Compact Disc)

- Optical disc storage device
- Store upto 783 MB of data
- Uses laser light to read and write

Types of CD :-

- CD-ROM - Users can only read data but cannot modify or burn it.
- CD-R (CD-Recordable) - Used to write once and cannot be modified or erased
- CD-RW (CD-Rewritable) - Often used to write or delete stored data, rewrite multiple times

DVD Drive / Disc

- optical disc
- Digital Versatile/Video Disc
- Storing capacity of 4.7 GB to 17 GB
- diameter - 120 mm

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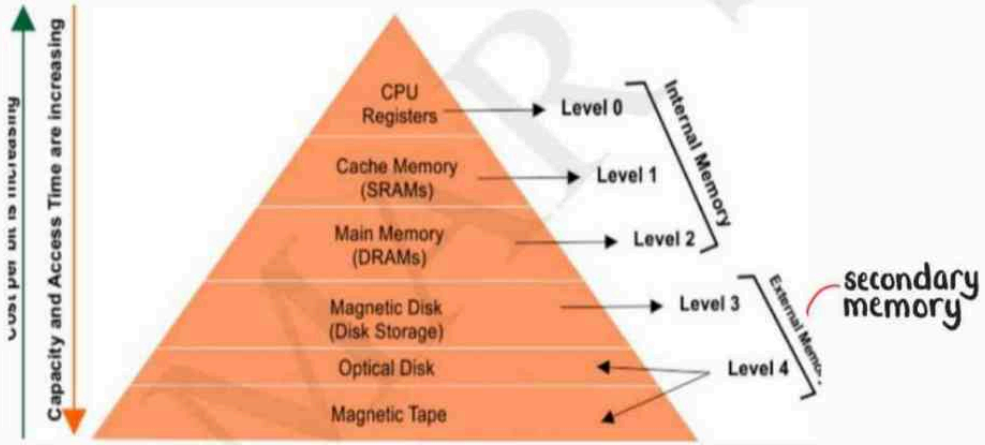
Blu Ray Disc (BD)

- Stores large amount of data/ high definition videos
- Provides 25 GB of space for data
- Diameter - 120 mm / 12cm / 4.75 inches

Pen Drive

- Portable device
- Also called USB Flash Drive
- Inserted through USB port
- Storing capacity of 64 MB to 128 GB

Memory Hierarchy



*Magnetic Disc eg :- HDI, Magnetic tape, zip disc, discpack, winchester disc

Q-1 _____ is also known as electronic disk.

A. USB sticks
C. Solid-state Drive
B. Network Storage Servers
D. USB Hard Drives

Q-2 _____ is a high speed device used in CPU that is utilised to store data temporarily during processing.

A. ALU
C. Control Unit
B. Auxilliary Memory
D. Registers

30

Q-3 Which statement is incorrect ÷

A. Cache memory keeps the programs that can be run in a short amount of time.

B. Cache memory stores data in permanent use

C. Cache memory is faster than main memory

D. Size of Cache is usually small

Q-4 The memory unit that communicates directly with the CPU is called _____ memory

A. Cache B. Backup C. Main D. Auxilliary

Q-5 The instructions that is not to be executed immediately is placed in the _____

A. Current Instruction Register (CIR)

B. Memory Address Register (MAR)

C. Program Counter (PC)

D. Instruction Buffer (IBR)

Q-6 Which statement is incorrect about Secondary memory ÷

A. It is known as backup memory

B. Data is permanently stored even if power is switched OFF.

C. Computer may run without the secondary memory

D. It is a volatile memory

Q-7 _____ memory is sometimes used to increase the speed of processing by making current programs and data available to the CPU at a rapid rate

A. Backup B. Auxilliary C. Main D. Cache

31

Q-8 _____ is the oldest type of CPU

A. Triple Core B. Single Core C. Dual Core D. Quad Core

Q-9 _____ is a type of dedicated file storage device that provides local area network (LAN) users with centralised, consolidated disk storage through a standard Ethernet connection.

A. Solid-State Drive (SSD) C. USB Sticks

B. USB Hard-Drives D. Network Attached Storage

Q-10 What is the purpose of ALU in CPU?

A-10 It executes program instructions by performing calculation & logical comparisons

Q-11 Which of the following is known as flash drive?

A. Disk Array B. HDD C. SSD D. Pen Drive

Q-12 Which statement is incorrect about cache memory?

A. It is slower than the main memory

B. It keeps programs that can be run in short amount of time

C. It acts as a high speed buffer between CPU and main memory

D. It stores data in temporary use.

Q-13 Which statement is incorrect about CPU.

A. Control Unit controls the order in which instructions enter & leave the processor and how the instructions are executed

B. ALU is responsible for taking the input, converting it into a signal and storing it for further processing

C. ALU is also known as mathematical brain of the computer

D. CU directs & manages operation sequences

32

Q14 Which among the following registers in instruction cycle holds the last instruction fetched?

A. Memory Address Register (MAR)
B. Instruction Register (IR)
C. Program Counter (PC)
D. Memory Buffer Register

Q15 Which of the following is not a magnetic disk?

A. Disk pack B. DVD C. Winchester disk D. Zip disk

Q16 Which among the following is not a magnetic storage?

A. Winchester disk
B. Floppy Drive
C. Memory Card
D. Magnetic Tape

Q17 _____ is the bit-rate of available or consumed information capacity expressed typically in metric multiples of bits per second

A. Frequency B. Protocol C. Speed D. Bandwidth

Q18 _____ holds address of the active memory location.

A. Stack pointer
B. Program Counter
C. Memory Address Register
D. Instruction Register

Q19 _____ are a set of wires, which carries a group of bits in parallel and has an associated control scheme. It provides a communication path between two or more devices of a computer system.

A. Buses B. Control Unit C. Register D. Cache

Q20 Which statement is incorrect for input devices?

A. They are also called as peripheral device

33

B. They accepts user data
C. They helps Computer in receiving data
D. Optical Mark Reader is an input device

Q.21 Which statement is incorrect about magnetic tape?
A. It consists of vertical columns called frames
B. Magnetic tape consists of horizontal rows called channels/tracks
C. Magnetic Tape drivers are not suitable for storage of data that needs to be accessed randomly
D. There is no addressing in the magnetic tapes

Q.22 In computer registers, MAR stands for _____
A. Memory Access Register
B. Memory Address Register
C. Main Access Register
D. Main Address Register

Q.23 Which backup device provides a convenient way to create system images and complete backups, but may require a lengthy restoration process?
A. DVD-RW disc
B. Solid-state drive (SSD)
C. Tape Drive
D. Network-attached storage (NAS)

Q.24 What is the primary purpose of RAM in a Computer?
A. Providing temporary storage for data that the CPU is currently processing
B. Storing permanent data and files
C. Managing peripheral devices
D. Providing long-term storage for programs

34

Q-25 A high speed memory is placed between CPU and primary memory known as _____ memory

A. Read Only B. Secondary C. Virtual D. Cache

Q-26 What is the function of the cache memory in a computer's memory hierachy?

A. To manage the allocation of memory resources to different programs

B. To store frequently used data for faster access by CPU.

C. To control the flow of data between the CPU and memory

D. To provide permanent storage for data and files

Q-27 An Erasable Programmable Read-Only Memory (EPROM) retain its content until it is exposed to the _____

A. Magnetic Signals C. Radio Signals

B. Electrical Signals D. Ultraviolet light

Q-28 Which of the following is the correct categorization of volatile semiconductor memory based on the data retention capability?

A. DRAM & ROM C. RAM & ROM

B. SRAM & DRAM D. SRAM & ROM

Q-29 What is the diameter of a Blu-ray Disc?

A. 115mm B. 100mm C. 110mm D. 120mm

Q-30 The _____ unit is that part of the CPU which controls or directs the operations of the processor.

A. Control C. Arithmetic logic

B. Memory D. Data

35

Q.31 A ____ bit is an extra bit included with a binary message to make the total number of 1s either odd or even

A. Complementary C. Parity

B. Exclusive D. Checker

Q.32 In computer memory, the width of the ____ bus specifies the maximum possible memory supported by a system.

A. Address B. Control C. I/O D. Data

Q.33 In computer memory, ____ bus is used to transfer addresses between CPU and the main memory

A. Address B. Control C. Data D. Status

Q.34 The CPU interacts directly with the ____ memory to perform read or write operation.

A. Secondary B. Cache C. Register D. Primary

Q.35 What is the role of ROM in a computer system?

A.35 Storing the computer's firmware and startup instructions

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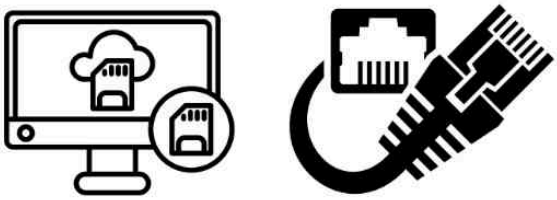
PC-BATCH

COMPUTER NOTES

Back up Devices & Ports



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LECTURE-4
BACKUP DEVICES AND PORTS

> Data can be stored as — (i) Back-up (ii) Archive

> **Back-up**: Backup is a copy of a file stored in a separate location. Can be used to restore the original after a data loss event.

> **Archive**: Data archiving is a solution for storing data for long periods of time.
- no changes can be made

	Backup	Archive
Data Storage Method	The original data remains in place, while a backup copy is stored in another location	Archived data is moved from its original location to an archive storage location
Data State	Backed up data is constantly changing	Once you create an archive, you do not modify it
Data Retention Policy	You periodically delete or overwrite data backups that are too old to be useful	Data archives are designed for long-term storage
Storage Type	Hot cloud storage or easily accessible local storage locations	Cold cloud storage or tape archives
Data Scope	All of your data, with the exception of unimportant information like temporary files	Specific files that you must retain for compliance purposes

for archives

frequent access

3-2-1 Backup Rule

original

different places

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> Backup Devices :-

Tape Drive
- reliable, Keeps data safe
- Sequential access device, slow in restoring files
- mainly used for archival purposes
- Random Access device - Eg - Magnetic Disc, RAM

Optical Disc
- Eg - CD, DVD, Blu Ray Disc - laser light
- More storage space
- Retention speed high

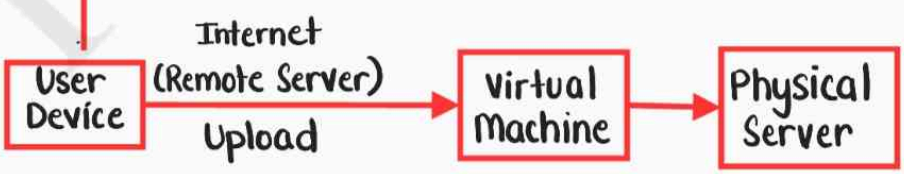
SD-Card
- Also called memory card, flash drive
- Full form - Secure digital Card
- Used for less data

USB Flash Drives
- Universal Serial Bus
- Used to transfer data from one system to another
- Also called pendrive, plug & play portable device

External Hard Drives
- HDD (Hard Disc Drive), SSD (Solid State Drive)
- More backup storage
- High data retention speed

NAS
- Network Attached Storage
- Provide storage for multiple devices

Cloud Storage — data is stored on servers in off site locations. Eg - Dropbox, Amazon Cloud, Google Drive



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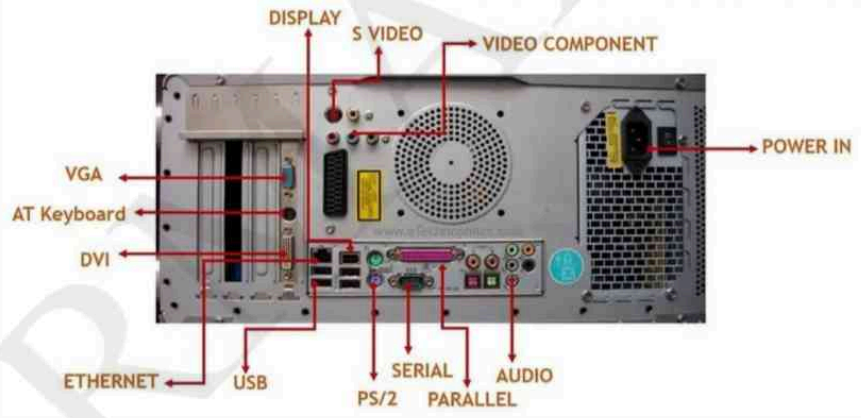
> Computer Port — Also called Communication Port
- Responsible for communication b/w computer & peripheral devices
- Two types —
  - **Serial Ports** – transmits one bit at a time
    common type is D-Subminiature or D-sub connector that carry R-232 signals
  - **Parallel Port** – data transferred in or out in parallel using more than one wire or communication line.
    Example - Printer Port

> Types of Ports -



1. **PS/2**
   - developed by IBM
   - Connects mouse and keyboard
   - Colour coded - Purple (keyboard), Green (Mouse)
   - Full form - Personal System Port
   - Has 6 pins

2. **Serial Port** – 2 Types

DB-25

- Has 25 pins
- A variant of D-sub connector and is the original port for R-232 serial communication

DE-9/DB-9

- Has 9 pins developed for RS-232 based serial communication

3 **Parallel Port**

- Also called Centronics Port / Line Printer Port (LPP)
- Centronics port is a 36 pin port

4. **VGA Port**

- Video Graphics Array
- Found in projectors, video cards, HD TVs
- Has D-sub connector consisting of 15 pins in 3 rows
- Connector is called DE-15

5. **Display Port**

- Digital display interface
- Handle resolution of upto 7680 X 4320
- It has 20 pin connector

6. **HDMI Port**

- High Definition Media Interface
- Connects High Definition & Ultra High definition Devices
- HDMI connector consists of 19 pins

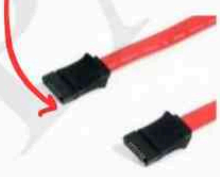
7. **USB** — Universal Serial Bus

- It replaced serial ports, parallel ports, PS/2 connectors, game ports and power chargers for portable devices.

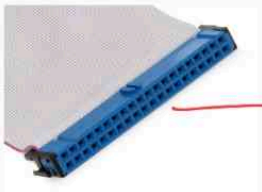
8. **RJ-45** — Ethernet Port - connects Computer to Internet and communicates with other computers

- Interface used for computer networking and telecommunications is known as Registered Jack
- Ethernet RJ-45 port has 8 pins

9. **SATA** — Serial Advanced Technology Attachment



- Interface for connecting external mass storage devices
- It has 7 horizontal pins - 4 pins arranged in 2 pairs for data and 3 ground pins



→ PATA - Parallel Advanced Technology Attachment

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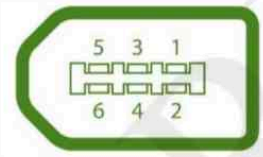
10 **Ethernet Port** — To connect to a network (Local Area Network LAN)

11. **DVI-Port**
- Digital Video Interface
- Connects LCD (flat panel) monitor to computer's high end video graphic cards

12. **Infrared Port**
- It is a wireless communication interface
- Used to send and receive infrared signals from other devices

13. **Fire Wire Port**
- developed by Apple
- Used to connect camcorders and video equipments to computer
- 3 variants
  - 4-pin Firewire 400
  - 6-pin Firewire 400
  - 9-pin Firewire 800



Important Questions

Q-1 Which among the following port is also known as Line Printer Port?

A. Parallel
B. Video Graphic Array
C. HDMI
D. Display

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Q-2 A _____ transmits one bit of a byte at a time as a single stream of bits. It is meant for transmitting slow data over long distances.

A. Parallel B. USB C. Serial Port D. Display

Q-3 Which among the following ports is also called as mouse port?

A. Video Graphic Array C. Firewire

B. HDMI D. PS/2

Q-4 Which backup device provides a convenient way to create system images and complete backups, but may require a lengthy restoration process?

A. DVD-RW disc C. Tape Drive

B. Solid State Drive (SSD) D. Network Attached Storage

Q-5 Which of the following is a principle of operation for magnetic disks?

A. Sequential Access C. Random Access

B. Direct Access D. Parallel Access

Q-6 Type of backup storage in which data is read in sequence is classified as

A. Storage Access C. Direct Access

B. Serial Access D. Permanent Access

Q-7 Which is the process of creating a duplicate set of program or data files for safekeeping

A. Backing up B. Disc clean C. Disc up D. Both A and B

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Q-8 Which is feature of Backup :

A. Used to recover data

B. Provide simple form of disaster recovery

C. It contains atleast one copy of all data

D. All of these

Q-9 Identify which type of port is given below:

A. Port B. Serial C. Parallel D. Concurrent

Q-10 How many pins does the LPP model have?

A. 10 B. 20 C. 25 D. 35

Q-11 A serial port has number of pins versions?

A. 9 pins B. 25 pins C. 30 pins D. Both A and B

Q-12 Which of the following is the port number 80 on a computer?

A. HTTP - Hypertext transfer Protocol

B. HTTPS - HTTP-Secure - Port No.-443

C. FTP - File transfer Protocol - Port No.-21

D. IMAP - Internet Message / Mail Access Protocol (Email Protocol)

- Unencrypted - Port No.-143
- Encrypted - Port No.-993

* Port Number is a 16 bit number that identifies a specific application or process on a device that receives network messages

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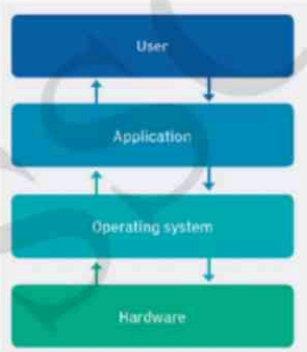
LECTURE-5
WINDOWS EXPLORER AND KEYBOARD SHORTCUTS

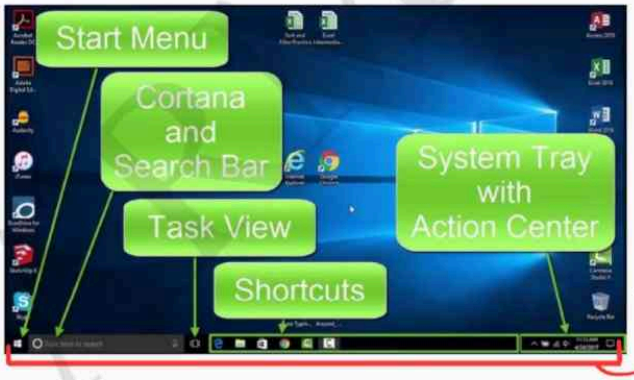
- **Windows** — Operating System (creates interface b/w user & computer)
  - Manages computer's hardware and software
  - By Microsoft — CEO - Satya Nadella



- **GUI** - Graphic User Interface
- **Examples of Operating system** - Microsoft Windows, Linux, MS-DOS, Unix, Solaries, Ubuntu, Apple macintosh, Mobile phone O/s
- **Versions of Windows** -

- **Windows 10**

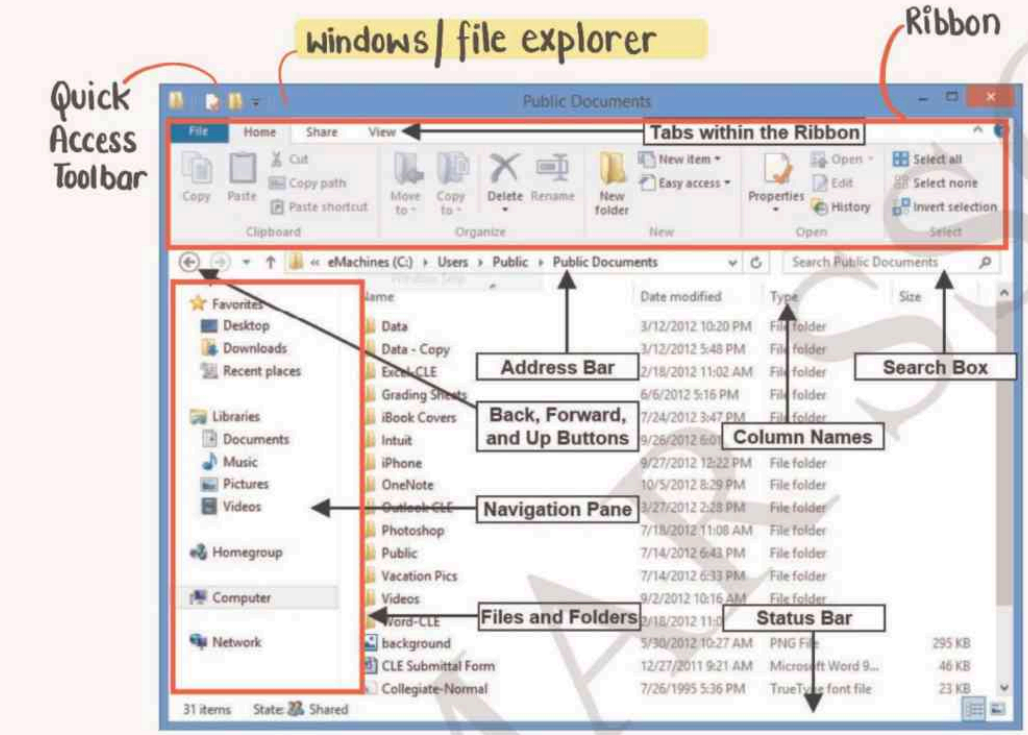
Latest Windows 11 — 2019



- **Windows Explorer** - file manager application - allows users to access, view and manage files
- **Ways to open windows explorer**

1. icon on home screen - task bar → File explorer
2. Shortcut - Window key + E

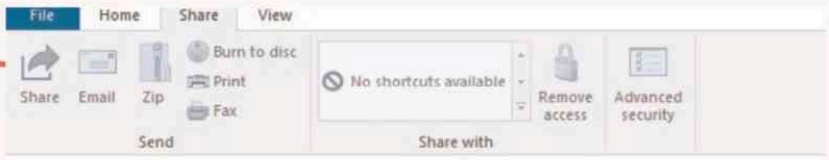
3. Run command shortcut ⇒ ⊞ keys +R Start Menu - ctrl+Esc
   search for explorer → Enter
4. ⊞ key – Start button → search for explorer



› File

› Home

› Share



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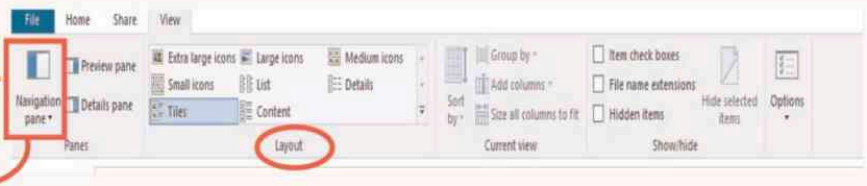
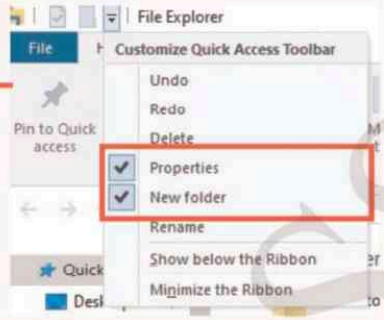
- **View**

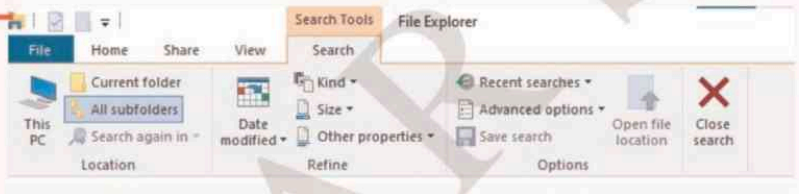


to manage navigation pane

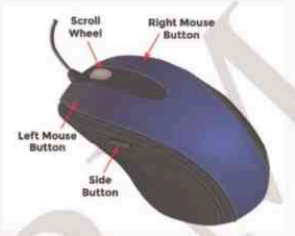
- **Quick Access toolbar**
  - By default has 2 options
    - Properties
    - New Folder



- **Search**
  - shortcut F3

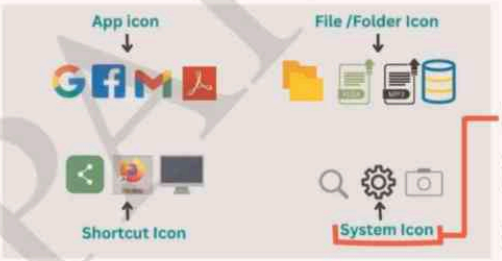


- **Mouse**



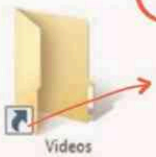
- **Start button** — press ⊞ Key / Ctrl + Esc

- **Icon**- graphic object that shows a program or a file on monitor



My computer, My documents, Internet Explorer, My Network Places, Recycle Bin etc

- **Microsoft edge** - default web browser with Microsoft Windows
- **Shortcut Icon**- provides easy access
  - When deleted – original file will not be deleted
  - has small arrows in the lower left corner



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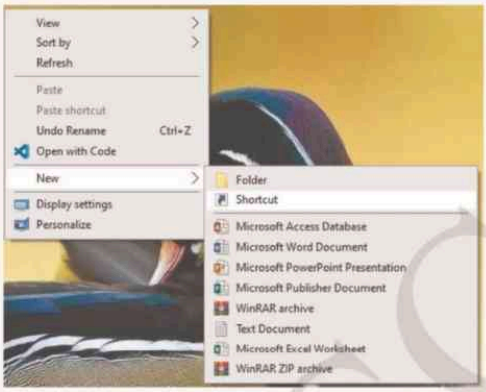
- **Process to create shortcut**

  Step 1- Right Click on Desktop
  Step 2- Click New
  Step 3- Click Shortcut
  Step 4 - Fill location



- **Recycle Bin**- Files and folders deleted from your hard drive are transferred to the Recycle Bin.

- **File** - Collection of information stored in a disk that can be read and manipulated whenever required.

- **Folder** - Special kind of file that contains list of other subfolders
  - Files on the list are said to be in the folder
  - To organize files in a proper way

- **Creating Files and Folders**
  - New folder (shortcut) - Ctrl + Shift + N
  - Rename folder - Select folder and press F2
  - New folder - Right Click on desktop - click New - Click Folder

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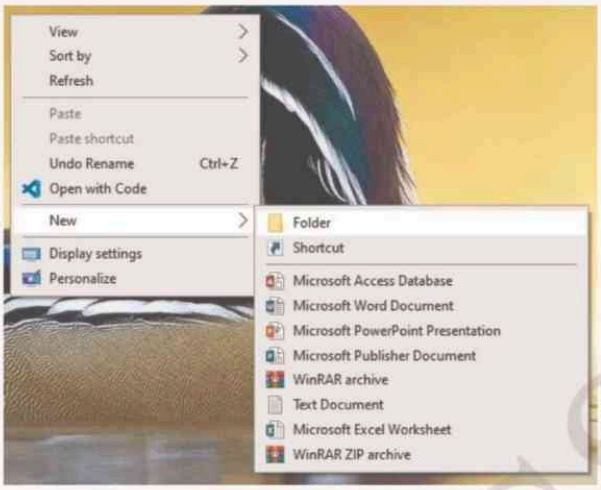
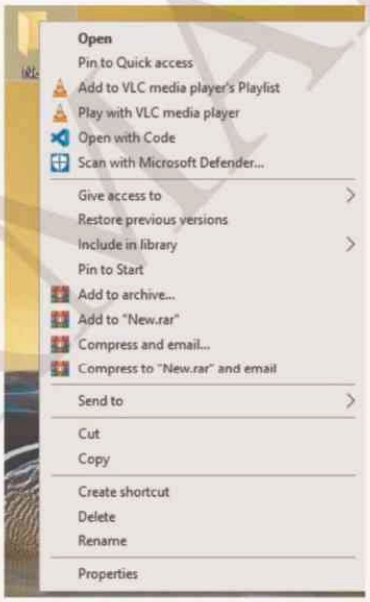
- New Folder



- Rename Folder

- Manage Folder



Copy and move files and folders

- Copy + Paste ⇒ Ctrl+C — Ctrl+V to desired place
- Cut + Paste ⇒ Ctrl+X — Ctrl+V to desired place
  - means the file will be removed from initial location

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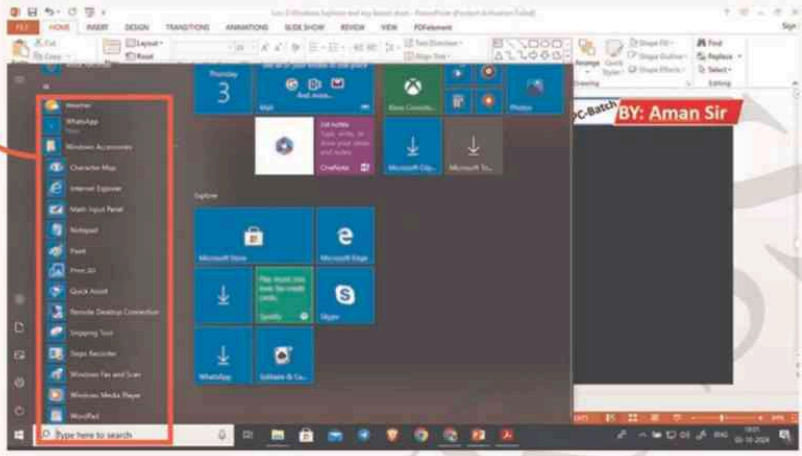
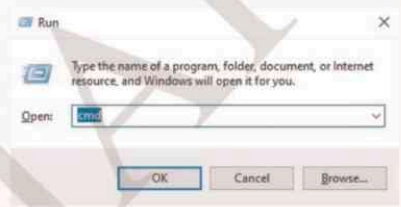
- **Delete a file**
  - Select file – press delete key

- **Windows Accessories** – Notepad, paint, calculator, Wordpad etc.



- **Running an application**
  - Open Run Command
    - ⊞ key + R



- **Setting date and time**
  - shortcut – ⊞ Key + Alt + D

- **Control Panel** – Centralised interface that allows users to manage various functions of computer software, hardware, etc.
  - Used to uninstall / Remove any application
  - **Ways to open**
    - ⊞ Key + R – search control panel – Enter
    - ⊞ key + I
    - Open windows setting (⊞ Key + I) – Search for control panel

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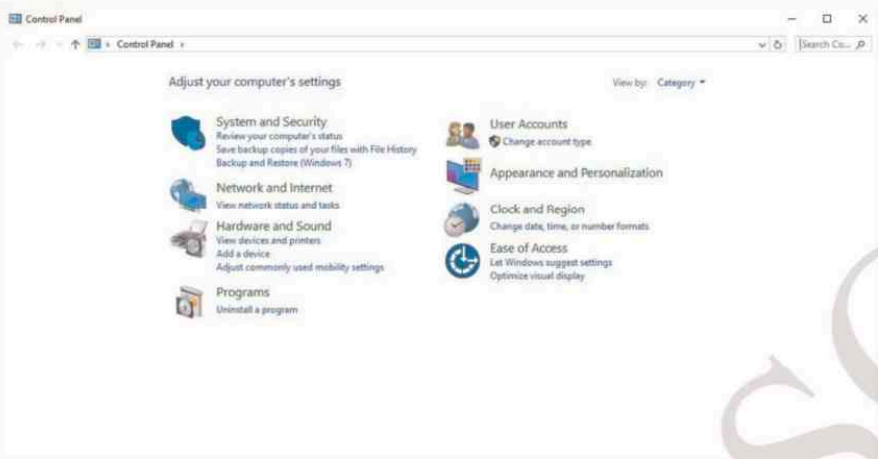
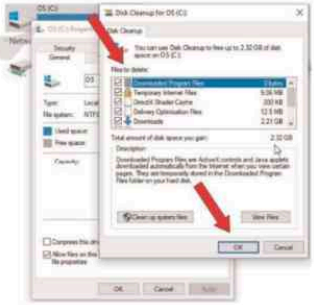
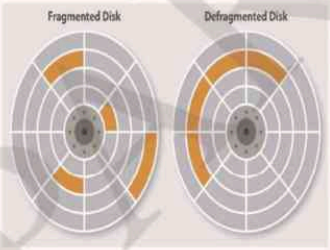


- **Windows Administrative tools** — Disk Cleanup, Disk Defragmentation

- **Disk Cleanup** — Utility Software
  Scans computer's hard drive for unnecessary files and removes them to free up disk space



- **Disk Defragmentation** — Also called defrag
  Process of reorganizing a hard disk drive's (HDD) data to store related pieces of data together
  This process can improve a computer's performance by making it faster to access files



Keyboard Shortcuts for Windows

- Cut selected item — Ctrl + X
- Copy selected item — Ctrl + C / Ctrl + Insert

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- Paste copied item – Ctrl+V / Shift+Insert
- Undo an action – Ctrl+Z
- Redo an action – Ctrl+Y
- Switch b/w open apps – Alt + Tab
- Close the active item, or exit the active app – Alt+F4
- Lock PC – ⊞ key + L
- Display and hide desktop – ⊞ key + D
- Rename selected item – F2
- Search for a file or folder in File explorer – F3 / Ctrl+F
- Display the address bar list in File Explorer – F4
- Refresh the active window – F5
- Cycle through screen elements in a window / desktop – F6
- Activate the Menu Bar in the active app – F10
- Display properties for the selected item – Alt + Enter
- Open the shortcut menu for the active window – Alt + Spacebar
- Select all items in a document or window – Ctrl+A
- Delete the selected item and move to recycle bin – Delete / Ctrl+D
  - ↳ Without moving to Recycle bin – Shift + Delete
- Refresh the active window – F5
- Redo an action – Ctrl+Y
- Move the cursor to the beginning of next word – Ctrl + →
- Move the cursor to the beginning of previous word – Ctrl + ←
- Move the cursor to the beginning of next paragraph – Ctrl + ↓
- Move the cursor to the beginning of previous paragraph – Ctrl + ↑
- Resize the start menu when its open – Ctrl + ↑/↓
- Select a block of text – Ctrl + Shift + →

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- Open Start - Ctrl + Esc
- Open task manager - Ctrl + Shift + Esc
- Display the shortcut menu for the selected item - Shift + F10
- Delete selected item without moving it to Recycle bin - Shift + Delete
- Stop or leave current task - Esc key

Shortcut with window key

- Switch input language and keyboard layout - ⊞ key + Spacebar
- Open task view - ⊞ key + Tab
- Maximize the window - ⊞ key + ↑
- Display the system properties dialog box - ⊞ key + Pause
- Take a screenshort of part of the screen - ⊞ key + Shift + S
- Open the Run dialog box - ⊞ key + R
- Open search - ⊞ key + S
- Minimize all windows - ⊞ key + M
- Lock your PC or switch accounts - ⊞ key + L
- Open settings - ⊞ key + I
- Open file explorer - ⊞ key + E
- Help - F1
- Open start menu - ⊞ key / Ctrl + Esc
- Switch b/w open programs - Alt + Tab
- Quit Program - Alt + F4
- Open print dialog box - Ctrl + P
- Close the current window - Ctrl + W
- Rename a folder - F2
- Search file or folder - F3
- Refresh a window - F5

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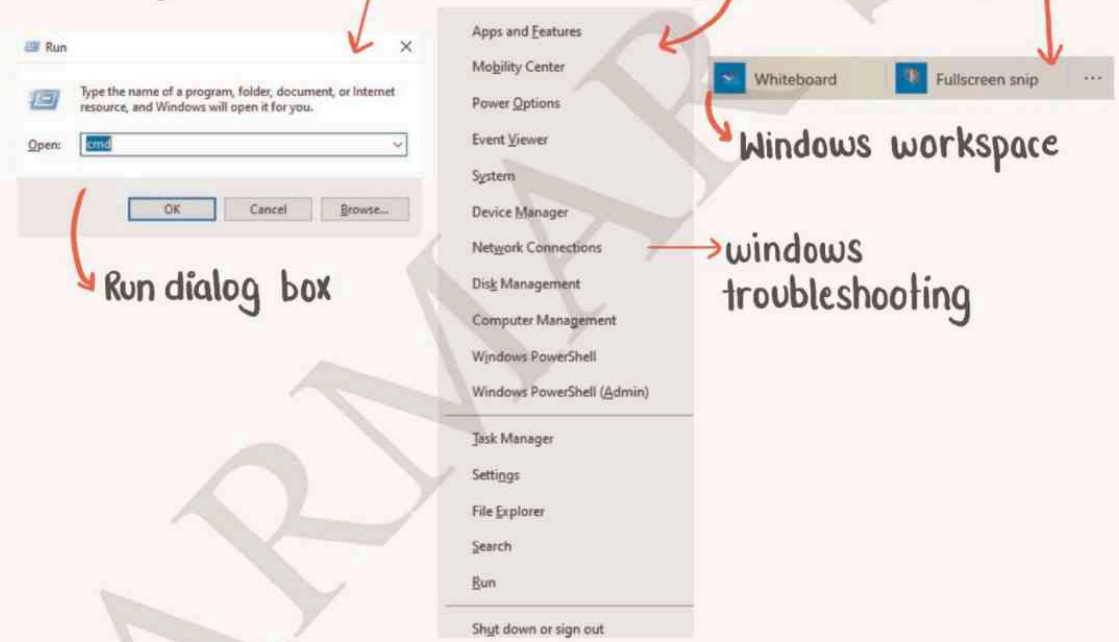
- Save a dialog box - F12
- Display the contents of the selected folder - Num lock + '+'
- Display all subfolders under selected folder - Num lock + '*'
- Collapse the selected folder - Num lock + (-)

Questions

Q-1 Which among the following keyboard shortcut can be used to open Windows Explorer?

A. ⊞ Key + E B. ⊞ Key + R C. ⊞ Key + X D. ⊞ Key + W



Q-2 Which among the following Keyboard shortcuts open the properties for the selected item on a Windows 10 home screen?

A. Alt + Shift + Spacebar

B. Ctrl + Shift + Spacebar

C. Alt + Enter

D. Ctrl + Enter

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Q-3 Windows explorer is an example of _____.

A. An Operating System
B. A programming language
C. A file manager
D. A web browser

Q-4 In File Explorer of Windows 10, the keyboard shortcut 'Num Lock + Asterisk sign (*) is used to _____.

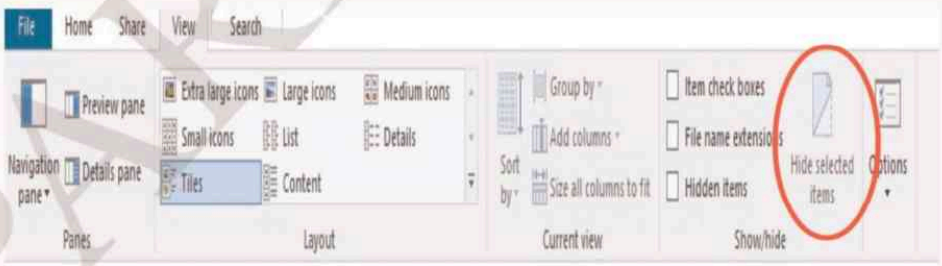
A. Open the properties dialog box for the selected item
B. display the contents of the selected folder
C. display all subfolders under the selected folder
D. Collapse the selected folder

Q-5 In Windows 11 File Explorer, to reduce the space between files, view > _____ view is selected.

A. Compact B. Stretch C. Cloud D. Wide

Q-6 In File Explorer of Windows 11, which of the following tabs includes the 'hidden items' option?

A. View B. File C. Home D. Share



Q-7 What is the keyboard shortcut to "paste" content copied from the clipboard in most Windows applications?

A. Ctrl + C B. Ctrl + Z C. Ctrl+V D. Ctrl + X

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Q-8 In Windows operating system shortcut key Ctrl + ⊞ key + F?

A. Restore the minimized windows

B. Open My Computer

C. Search for a file or a folder

D. Search for computers

Q-9 In windows, we go to option _____ in control panel to uninstall a program from our computer.

A. Default Programs B. Action Centre C. Device Manager

D. Programs and Features

Q-10 In Windows operating system shortcut key ⊞ key + F1?

A. Display Windows Help

B. Lock the keyboard

C. Open the Run dialog box

D. Open Utility Manager

Q-11 Which among the following statements is incorrect?

A. The right windows of Windows Explorer is called Navigation Pane

B. From the Navigation pane, you can view your computer's file and folder structure and access files and folders.

C. In the Navigation Pane, there is a Quick Access area

D. Navigation Pane is on left side

Navigation Pane is on left side

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Q-12 In Windows operating system shortcut key ⊞ Key+L is used for?

A. Display Windows Help
C. Open the Run dialog box
B. Lock the Keyboard
D. Open Utility Manager

Q-13 Which shortcut is used in Windows operating system to display the system Properties dialog box?

A. ⊞ Key B. ⊞ Key+BREAK C. ⊞ Key+D D. ⊞ Key+M

Q-14 _____ displays a list of utility configure the computer system and install software and hardware.

A. Control Panel B. Help & Support C. Taskbar D. Run

Q-15 In Windows operating system shortcut Ctrl while dragging an item?

A. Delete the selected item permanently without placing in recycl-e bin
B. Copy the selected item
C. Rename the selected item
D. Create a shortcut to the selected item

Q-16 In windows operating system shortcut Ctrl+Shift while dragging an item

A. Delete the selected item permanently without placing in recycl-e bin
B. Copy the selected item
C. Rename the selected item
D. Create a shortcut to the selected item

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Q-17 In Windows operating system the shortcut key Ctrl+E is used for –

A. Open the Organize Favorites dialog box

B. Open the search bar

C. Start the Find Utility

D. Open the History bar

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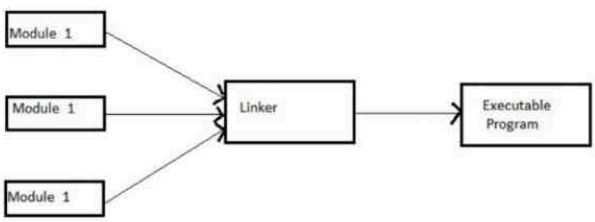
LECTURE-6
COMPUTER SOFTWARE

- **Software** – Set of instructions compiled to create a program. (has some function/ performs specific task) – cannot be touched

Types of Softwares:

1. **System Software** – manage and organize files of computer
   - mandatory software to run computer
   - Eg.- Operating systems like Windows, Linux, MS-DOS, Unix, Solaries, Ubuntu, Apple Macintosh, Mobile phone O/s
     - Windows, Linux → GUI
     - MS-DOS → Disk Operating system based on Character user interface (CUI)
     - Linux → Open source operating System – free to use
   - Other eg.- Server programs, device drivers, Loader, Linker, Language Processor (translator)
   - **Server Programs** – run as services and serve the need of other programs. Eg- Web, print, file, database server
   - **Device Drivers** – shared computer programs that provide an interface b/w hardware and operating system
   - **Loader** - Set of program that loads the machine language translated by the translator into the main memory and makes it ready for execution
   - **Linker** – program that takes one or more objects file code generated by a compiler and combine them into a single executable program



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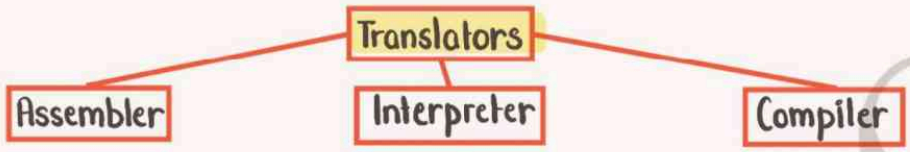
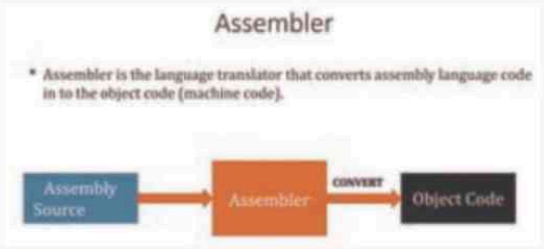
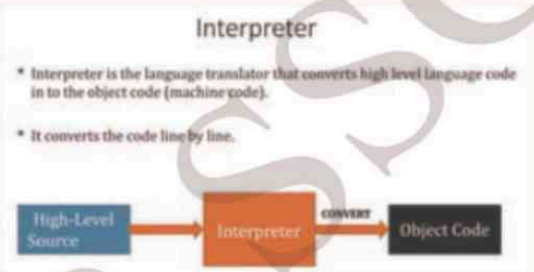
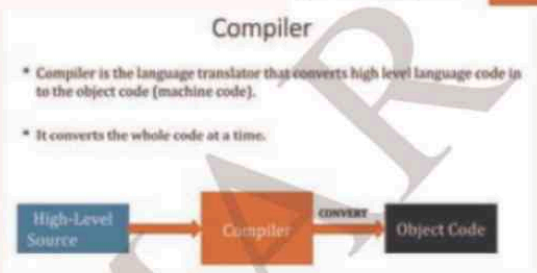
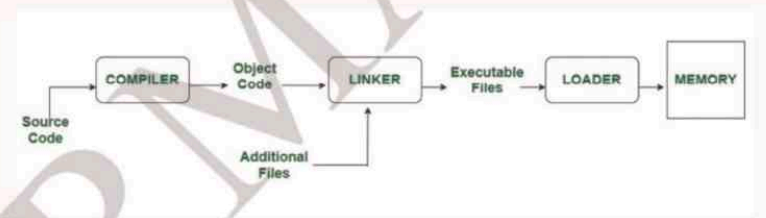
Language Processor (Translator) - translates source code from one programming language to another.











2. Application Software — end user programs - do real work for users
- cannot run without system software
- created for user convenience only
- Eg:- MS Word, MS powerpoint, MS Excel, spreadsheet, documents, Adobe reader, Corel draw, Photoshop etc
  - graphic designing

3. Utility Software — perform a single specific task
- maintain and check for health of computer by scanning and managing data.

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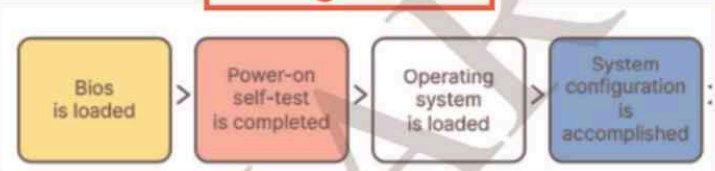
Eg- Disk checkup, disk restore, disk backup, disk format, disk compression, Antivirus, firewall, disk cleanup, disk defragmentation

Booting Procedure - Process of loading operating system from disk to RAM

- **Warm Booting** – process of restarting / turning on the computer which is under on condition
- **Cold Booting** – starting / turning on the computer from an off condition.

Booting Process



BIOS - Basic Input Output System

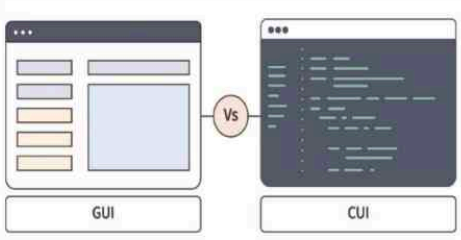
POST - Power On Self Test

CMOS - Complementary Metal Oxide Semiconductor
- manage time and date
- maintains boot order

Operating System - System software – supervisor of computer functions
- creates interface b/w user and computer
- Eg. Windows, Linux, Solaries, Ubuntu, MS DOS etc

Operating System based on interface

- **GUI** - Graphical User Interface
- **CUI** - Character User Interface



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Functions of Operating System

- Memory Management
- User Interface
- Input/Output Management
- Information Management
- Process Management

Classification of Operating System

Multiuser Operating System - Allows 2 or more users to run the programs at the same time.
Eg - UNIX, LINUX

Multitasking O/S - allows more than one program to run conc-urrently. Eg - UNIX, Windows.

Multiprocessing - supports running a program on more than one CPU or processor.

Questions

Q-1 A set of computer programs used on a computer to perform different task is called
a) Computer instructions
b) processor
c) Software
d) hardware

Q-2 Which of the following is NOT a system software?
a) Operating system
b) Compiler
c) Word processor
d) Windows

Application Software

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Q-3 Which of the following is not a system software?

a) POST
b) Firmware
c) Device Drivers
d) DB2 – Database (Application Software)

Q-4 Which software is used to manage and control the hardware components and allows interaction between the hardware and the other different types of software?

a) Application software
b) System software
c) Utility Software
d) Operating system

Q-5 Software can be uninstalled through :

a) Debugger
b) Linker
c) Control Panel
d) Compiler

Q-6 A computer program that functions as an intermediary between a computer user and the computer hardware is called.

a) Software b) Hardware c) Operating System d) driver

Q-7 A linker is responsible for _____

a) loading data from disk to memory for execution
b) linking to source files
c) linking object files
d) linking header files

Q-8 One or more defects occurring in the computer software that prevent the software from working is called

a) bot b) System error c) bug d) slug

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Q-9 Software programs developed for performing particular tasks related to managing computer resources is called

a) System software
c) Application software
b) Utility software
d) Helper software

Q-10 Which of the following is not an appication software?

a) MS-Word
c) Adobe Acrobat
b) Google docs
d) Turbo C Compiler - Translator

Q-11 A loader is responsible for _____

a) loading of program code from disk to memory for execution
b) Editing the source file
c) loading object file
d) loading header files

Q-12 Full form of GUI

A-12 Graphical User Interface

Q-13 Which among the following is not a type of utility system software?

a) Antivirus
c) Disk defragmenter
b) Firewalls
d) MS-DOS

Q-14 Which utility software or program is used to reduce the size of files to increase the amount of disk space in the computer system?

a) Disc cleanup
c) Disk fragmentation
b) File compression
d) Troubleshooting program

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Q-15 Which of following is an application software?

a) LINUX
c) UNIX
b) macOS
d) Graphic software

Q-16 Which of the following windows utilities scans the entire hard drive and erase (or delete) any unnecessary files such as temporary files from the Internet, and cookies downloaded while visiting webpage?

A-16 Disk Cleanup

Q-17 A program that provides software interface to hardware devices is called

a) System software
c) Device Drivers
b) Application Software
d) All of the above

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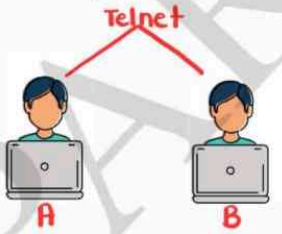
LECTURE-7
WORKING WITH INTERNET

Internet : Interconnected Network
- Network of computers connected with one another
- Global Information Exchange b/w people through devices

Evolution of Internet :

1. **ARPANET :** Ist intranet/Internet developed in 1969 by US Defence for the internal communication
   - Advanced Research Project Agency Network

- Father of Internet : **Vinton Gray Cerf**
  - Shared files using TCP/IP Protocol
    - Transmission Control Protocol/Internet Protocol
- Father of Web (WWW) : **Tim Berner Lee** – also invented HTML
  - World Wide Web
- Father of ARPANET : **Larry Robert** — invented Telnet



Telnet
- A network protocol that allows users to access a **remote** computer or device and communicate with it using text based interface

How Internet Works :

Computer → Server (Storage place) → data center

Website → IP Address ← Device
- name is called **Domain**

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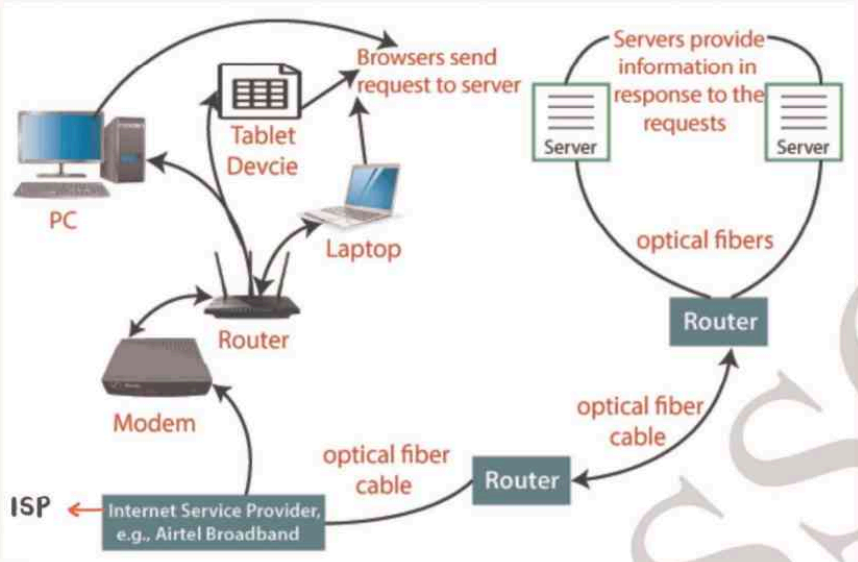

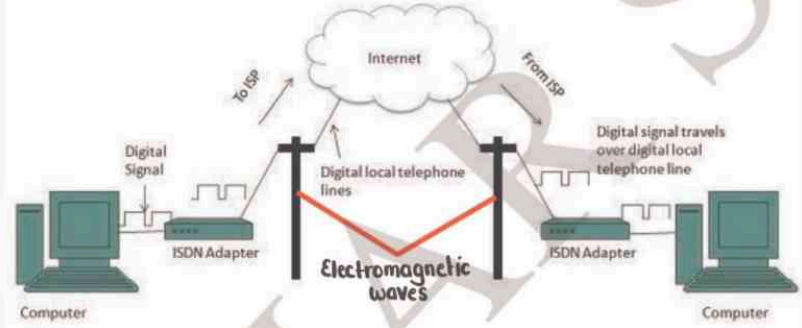

- **Domain** provided by DNS (Domain Name System)
  managed by ICANN (Internet Corporation for assigned names and numbers)
- **Intranet** — Network of system within an organization
  - Eg- Campus & Corporate networks, Database in CID
- **Extranet** — outsider given permission to access organization's data
- **Protocol** — set of governing rules/instructions on network
- **World Wide Web (WWW)** — system of interlinked hypertext documents accessed via the internet
  developed in 1989 | introduced in 1993
- **Website** — collection of **webpages** written in HTML (Hyper Text Markup Language)

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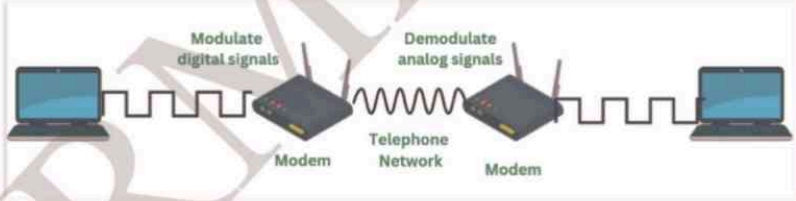
- **W3C** — World wide web Consortium
  set of guidelines for WWW standards

Requirements to access internet :

- **Software** – Operating system must be installed
- **Internet Browser** — Allows user to access information on WWW
  Eg- Google Chrome, Mozilla, Brave, Safari, UC Browser, Opera, Microsoft Edge
- **Firewall** – tools to protect data from hackers.
- **TCP/IP Protocol** – makes system compatible to use internet
- **ISP** — Internet Service Provider – provides internet services
  Eg- Jio, Airtel, Starlink etc
- **Modem** — Modulator Demodulator
  allows us to connect with other computers via telephone lines (Analog Signals ⇄ Digital Signals)
  demodulation →
  ← modulation



Elements of the Web:

- **Web Browser** – helps to navigate world wide web
- **Web pages** — electronic document written in HTML
- **Web site** — collection of information stored as web pages

Internet Addressing Scheme

- **Resource Address** — URL - Uniform Resource Locator
  refers to address on the internet
  Eg. - Website address

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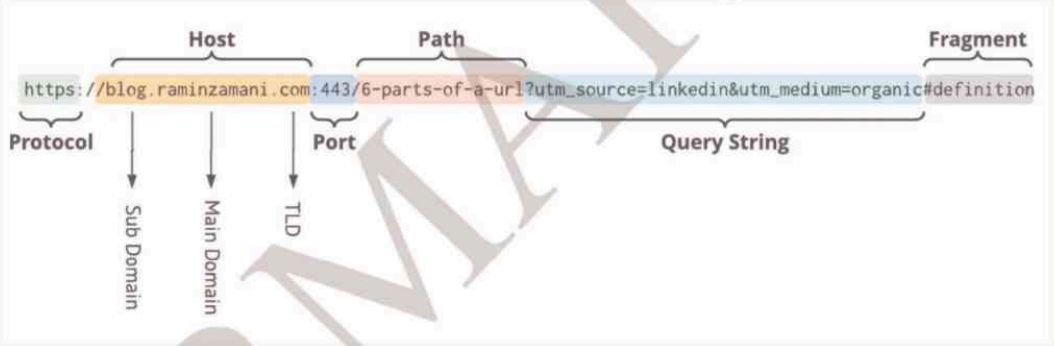
Composition of a Domain:

- Name of the site
- Type of service/scheme (eg. http, ftp etc)
- Internet port number (default value when omitted)
- Location of resource in directory structure of the server

Structure of URL:



Types of Domain:

- Domain names should be easy to remember.
- It ends with an identifier
- .com — commercial
- .edu / .ac — educational or academic
- .mil — military
- .net — networking / ISP company
- .org — Organizational
- .gov — Government
- .info — informational sites

Port No.:
HTTP - 80 HTTPS - 443
FTP - 21
IMAP - 143 - Unencrypted
993 - Encrypted

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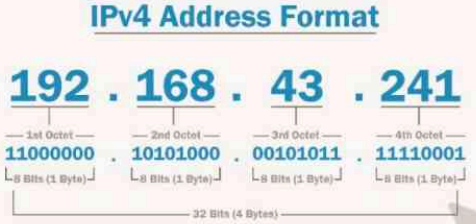
IP Address :- Unique address that identifies a device on internet or local network.

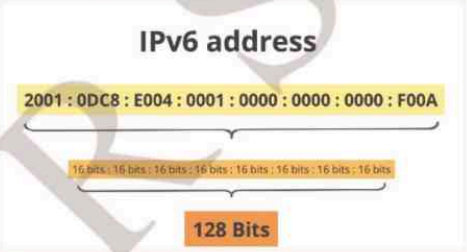
Internet Protocol — set of rules governing the format of data sent via the internet or local network

Internet Protocol:- Most networks use IP version 4 (IPv4) standard that features four bytes (32 bits) in length.

IPv4 = 4 bytes (32 bits)



IPv 6 = 16 bytes (128 bits)



Cookies — Small text files placed on a user's computer, used to collect personal data

It gathers user data and enable website to recognize the user as an existing customer

Types of Internet Cookies

Session Cookies / temporary Cookies

- helps recognise users and information
- Only retain user's activity information
- Webbrowser closed → cookies deleted
- Commonly used in shopping / e-commerce websites

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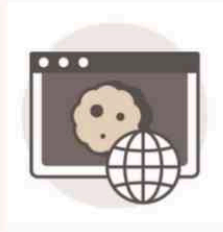
Permanent / Persistent Cookies

- Remain in operation even after web browser is closed
- Eg- Saved login details
- law states it must be deleted after 12 months

First Party Cookies

- Installed directly by website visited by the user
- Enable website owner to collect analytics data, language setting to provide good user experience



Third Party Cookies

- Installed by third party to collect data to carry out research. For eg- behaviour, demographics etc.
- Commonly used by advertisers

Flash Cookies / Super Cookies

- Independent of Web browser
- designed to be permanently stored in computer
- Remain in user's device even after all cookies have been deleted from web browser.

Zombie Cookies

- Type of flash cookie that automatically recreated after being deleted
- Difficult to detect or manage
- Often used in online games to prevent cheating
- Used to install malicious software

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Some Popular terms on Internet :

- **BITNET** — Because it's time/ there NETwork
  - Listservs® – email discussion group, originated on BITNET
- **Social Networking** — network of individuals with interdependence on each other. Social Networking Service may be offered through website on internet
- **Blog** — Website where entries are written as information or news on a particular subjects.
- **Archie** — tool (software) for finding files stored on anonymous FTP sites.
  - Need exact file name or a substring of it
  - By 1999 it was replaced by web based search engines

Full forms :

- **ICMP** - Internet Control Message Access Protocol
- **IP** – Internet Protocol
- **TCP** – Transmission Control Protocol
- **UDP** – User Datagram Protocol
- **DNS** – Domain Name System
- **HTTP** – Hyper text transfer Protocol
- **FTP** – File Transfer Protocol

Questions

Q-1 _____ are rules that exist at several levels in a telecommunication connection.

A. Bandwidth B. Network Surface Unit **C. Protocol** D. Domain Name

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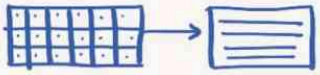
Q-2 Which of the following internet protocol specifies how data is exchanged over the Internet and how it should be broken into IP Packets? — data travels in form of IP Packets — 
(travels: shortest path decided by Router)

A. PPP — Point to Point protocol – transmit multiprotocol data b/w computers
B. HTTP
C. TCP
D. SMTP – Simple Mail Transfer Protocol

Q-3 Which of the following is a web browser created and developed by Microsoft?
A. Opera B. Chrome C. Edge D. Brave

Q-4 _____ cookies track you and expose your privacy
A. Persistent B. Third-Party C. Zombi D. Session

Q-5 A/An _____ is an organization that connects its subscriber's computer using modem to the Internet
A. Web Browser B. Web Server C. ISP D URL

Q-6 Which of the following parts of given URL is a 'domain name'?
http://www.india.in/tallybook/tallybook.xyz
A. tallybook B. http: C. www.india.in D tallybook.xyz

Q-7 Which among the following is a part of URL?
A. Server B. Port Number C. Error Code D. Multiplexer

Q-8 Some cookies are automatically recreated after a user has deleted them. These are called _____ cookies.
A. Third Party B. Zombie C. Persistent D. Session

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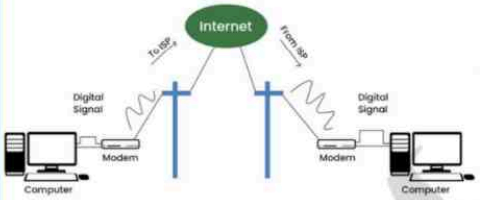
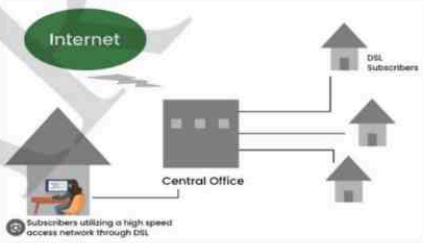
LECTURE-8
WORKING WITH INTERNET PART-2

Types of Internet Connection:

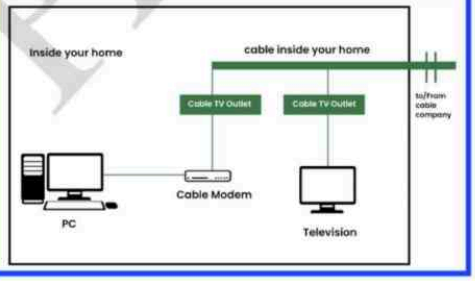
Dialup Connection
- b|w computer and ISP using modem
- Cheap | very slow
- Need to dial a phone no. for internet access
- Can either use internet or telephone at a time



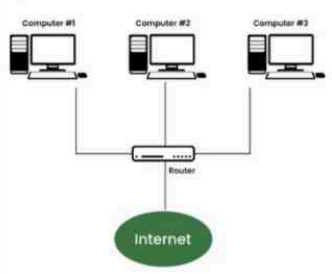
DSL
- Digital Subscriber Line
- access through telephone line (network)
- Always on, no need to dial a phone no. to connect



Cable
- form of broadband connection
- fast access to internet
- Speed of connection varies while uploading / downloading
- Uses cable modem
- operates on cable TV lines



Broadband Connection
- faster than traditional dial-up access
- does not require any telephone connection
- Many people can access simultaneously
- Coaxial cable, optical fibre cable, radio, twisted pair cable used.



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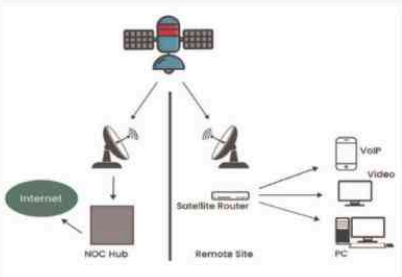
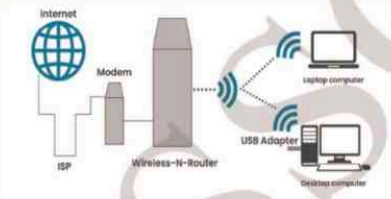
Satellite Connection

- mainly in rural areas
- access via satellite
- type of Wireless connection



Wireless Connection

- Does not require telephone lines or cables
- Uses radio frequency band
- Always ON, can be accessed from anywhere



Network Protocols

- **TCP** - Transmission Control Protocol - Reliable, error-checked delivery of data between applications
- **UDP** - User Datagram Protocol - Connectionless communication
  - Often used in streaming and gaming
- **IP** - Internet Protocol - Responsible for addressing & routing data packets - Two versions - IPv4 and IPv6
- **HTTP** - Hypertext Transfer Protocol - Transfer Web pages on internet
- **HTTPS** - HTTP Secure - Extension of HTTP
  - Uses SSL/TLS to encrypt data for secure communication
    - Secure Sockets Layer | Transport Layer Security
- **FTP** - File Transfer Protocol - Transfer files between computers
  - Supports both upload and download
- **SFTP** - SSH File Transfer Protocol
  - Secure Shell
  - Secure version of FTP - uses SSH to encrypt transfer of files
- **DNS** - Domain Name System - Translates domain names into IP addresses, enabling browsers to load internet resources.

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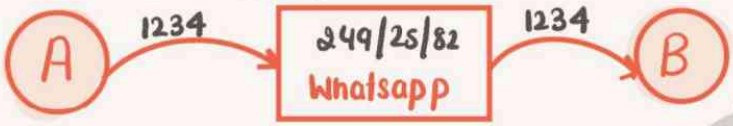
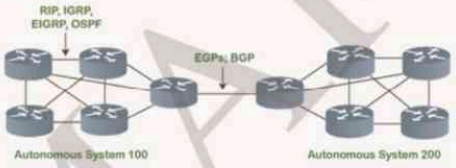
- **DHCP** – Dynamic Host Configuration Protocol
  Automatically assigns IP addresses to devices on a network
- **TLS/SSL** – Transport Layer Security / Secure Sockets Layer
  Protocol for encrypting data sent over a network



Encryption

- **SSH** – Secure Shell – Protocol for securely accessing network devices and servers over an unsecured network
- **SNMP** – Simple Network Management Protocol
- **Telnet** – Text based communication protocol – not secure
- **BGP** – Border Gateway Protocol – exchange routing information



- **ICMP** – Internet Control Message Protocol
  Used for network diagnostics and error reporting
  Commonly seen in the ping command

Search Engine :- Software that searches through a database of webpages for information. Search using keywords entered. Eg- Yahoo, Alta Vista, Hot bot, Web Crawler, Excite, Lycos, Magellan, Google, Bing, Infoseek, Duck Duck Go, Baidu, Yandex, Ask.com, Internet archive

* India's first Private Search Engine – **Qmamu**
  easy to use and fast running native Google has been named Qmamu (Kyu Mamu)

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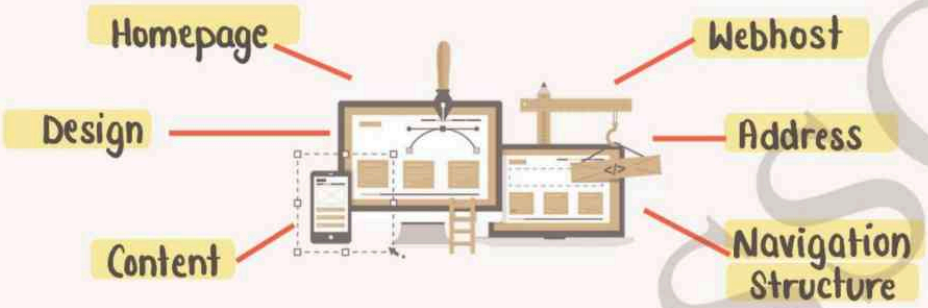
Websites :- Collection of webpages defined by common domain name and published on atleast one web server.

Components of a Website :



Types of Websites

Static Website	Dynamic Website
Webpages are returned by the server which are prebuilt source code files built using simple languages like HTML, CSS or Java Script	Web pages are returned by the server which is processed during runtime (not prebuilt) with the help of server-side scripting languages like PHP, Node.js, ASP.NET

Web Browser – Software application that provides functionality to a client to display and interact with text, images.

- First Web Browser – worldwideweb (1990) – 'Nexus'
- Mosaic – 1993 – 1st World's popular browser
- Eg- Mosaic, Netscape Navigator, Internet Explorer, Lynx, Mozilla Firefox, Chrome, Edge, Safari, Opera, Sea Monkey, Maxathon, Vivaldi, Tor, Dooble, Brave (most secure), Amaya, UC Browser

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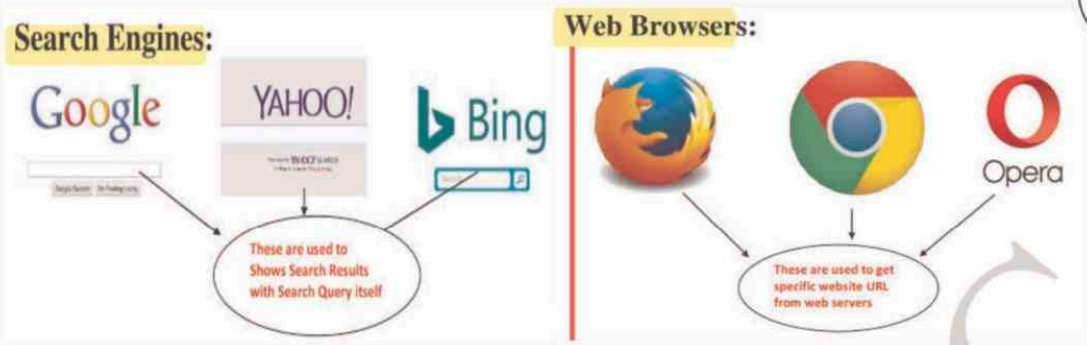
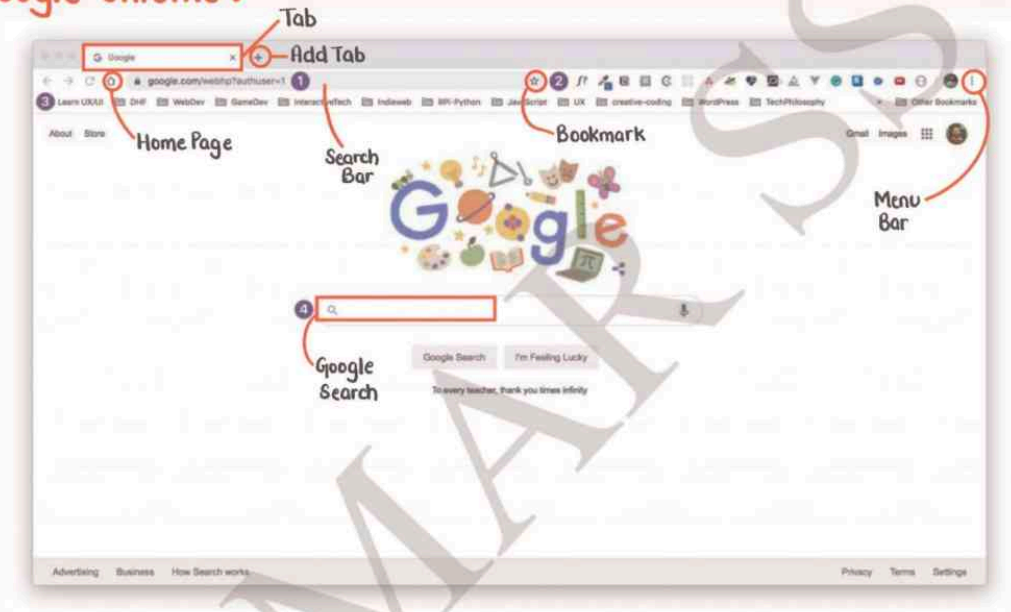


Google Chrome :-



Shortcut keys :-

- Open home page - Alt + Home
- Display current website in full-screen mode - F11
- Stop loading the page or a download from loading - Esc
- Zoom in/out of page - Ctrl + (+) / Ctrl + (-)
- Move to corresponding tab - Ctrl + 1/2/3/4 ···· etc (tabs)
- Switch to last tab - Ctrl + 9
- Open clear browsing data window to clear private data - Ctrl + Shift + Del
- Select everything on page - Ctrl + A
- Add bookmark to currently opened page - Ctrl + D
- Bookmark all pages - Ctrl + Shift + D

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- 'Find' bar to search - F6 ⇒ Ctrl+F
- Open browser history in new tab - Ctrl+H
- Display downloads window - Ctrl+J
- Open new browser window - Ctrl+N
- Open new incognito (private) window - Ctrl+Shift+N
- Print current page or frame - Ctrl+P
- Refresh current page or frame - F5 ⇒ Ctrl+R (Reload)
- Hard Refresh - Ctrl+F5
- Open 'Save As' window to save current page - Ctrl+S (HTML format)
- Open a new tab - Ctrl+T
- Reopen last tab closed - Ctrl+Shift+T
- Close current tab - Ctrl+W
- Close currently selected window - Ctrl+Shift+W
- Move through each tab to the right - Ctrl+Tab/ Ctrl+Page down
- Move through each tab to the left - Ctrl+Shift+Tab /Ctrl+Page up
- Task Manager - Shift+Esc

Common Error messages from a browser :

- 52 Runtime Error
- 400 Bad File Request
- 401 Unauthorized
- 403 Forbidden| Access denied
- 404 File not Found
- 408 Request Timeout
- 500 Internal Server Error
- 501 NOT Implemented
- 502 Service Temporarily Overloaded
- 503 Service Unavailable
- Bad File Request
- Unable to Locate Host
- Host Unavailable
- Connection Refused by Host
- Errors on Page
- Script Error
- Runtime Error
- Failed DNS Lookup
- File Contains No Data
- Network Connection refused by Server

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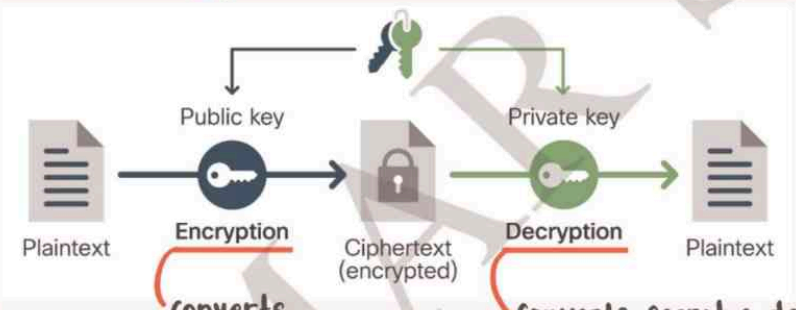
Blogs – Managed by an individual or a small group of people.
Articles on some topic like fashion, travel, music, fitness etc.

Chat – Communication done with the help of internet which transmit text messages from sender to receiver
Types : Instant, Internet Relay Chat, Voice , Video
Platforms : Yahoo messenger, Google talk, Facebook, Hike, Whatsapp, Skype, Telegram, Snapchat

Encryption and Decryption :



converts plain text to secret code

converts secret code to plain text

Video Conferencing – Internet service for meeting people and talk via video communication from anywhere
Platforms : Google meet, Starleaf, Goto Meeting, Skype, Zoom, Microsoft meeting

Social Networking – Way of connecting people from around the world online, to share views and ideas
Platforms - Facebook, Orkut, Twitter, Google+, LinkedIn, Badoo, Meetup, Ning

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E-Banking – Facility to make online transactions
Eg- Paying Bills, Donations to charities etc
Types : (i) Mobile & Internet Banking
(ii) Credit and Debit Cards
(iii) ATMs – Ist e-banking service provided by banks

Types : **EDI** – Electronic Data Interchange
Restricted to Business Transactions
Paperless and seamless transaction

EFT – Electronic Fund Transfer
transfer money from one account to another

Modes : (i) **NEFT** – National Electronic Fund Transfer
(ii) **IMPS** – Immediate Payment Service
(iii) **RTGS** – Real Time Gross Settlement

BASIS OF COMPARISON	NEFT	RTGS	IMPS
Minimum transfer value	Re. 1	Rs. 2 lakh	Re. 1
Payment options	Online and offline	Online and offline	Online
Maximum transfer value	No limit	No limit	Rs.2 lakh
Settlement type	Half hourly basis	Real time	Real time
Inward transaction charges	No charges	No charges	Decided by the individual member banks and PPIs

- **UPI** – Unified Payment Interface
- **BHIM** – Bharat Interface for money
- **NPCI** – National Payment Corporation of India

Data Communication Exchange of data between two devices via some form of transmission medium like wire cable.

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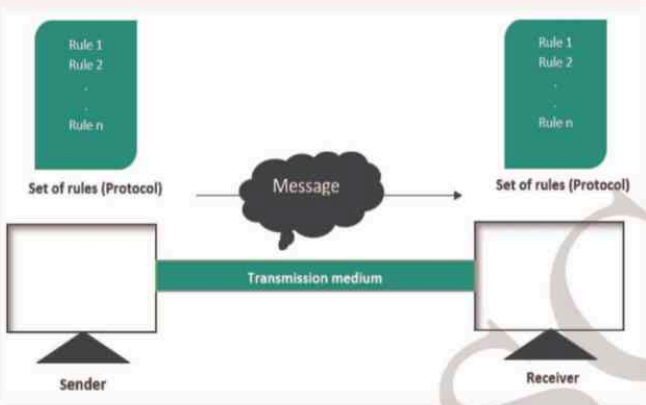
Components :-

(i) Message
(ii) Sender
(iii) Receiver
(iv) Transmission medium
(v) Set of Rules

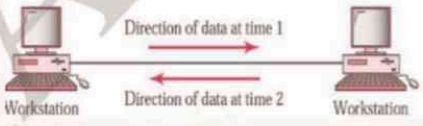


3-TYPES OF COMMUNICATION MODES

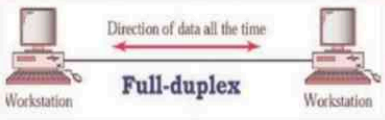
1 **Simplex Mode** – Eg- cabled keyboard, TV
Data only moves in one direction (from A to B)

Only transmit Keystrokes

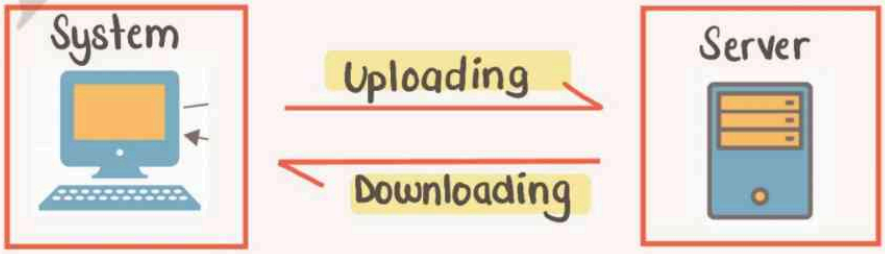
2 **Half Duplex Mode** – Eg. Walkie-talkie
Data travels in one direction (from A to B) and then the other direction (from B to A) but not at the same time.



3 **Full Duplex Mode** – Eg. telephone call
At the same time, data can move both directions.



Uploading and Downloading :-



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Questions

Q-1 What is the shortcut key to open a new tab in google chrome

A Ctrl+T

B Ctrl+K – to toggle the search bar

C. Ctrl+N – Open a new window

D. Ctrl+S – to save the current page

Q-2 Which of the following is a web browser developed by Microsoft ?

A. Opera ⟶ 1995 – Opera Software

B. Chrome ⟶ Google Chrome – 2008

C. Edge ⟶ Microsoft – 2015

D. Brave ⟶ 2016 – Brave Software

Q-3 While _____ data transfers from the customer's machine to the server. — Uploading

Q-4 Which of the following is shortcut to reload current page in Google?

A. F7 – turn on Caret Browsing B. F5 – Ctrl+R (Reload) C. F1 – Help D F3 – Open search bar to search for text on webpage

Q-5 Which is graphical web browser developed by Apple ?

A. Safari B. Firefox C. Chrome D. Edge

Q-6 In web browser, Which is responsible for displaying web pages?

A. Server B. Rendering Engine C. Page Engine D. Search Engine

Q-7 Which is shortcut key to bookmark current webpage on web browser.

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A. Ctrl+N - New window B. Ctrl+I (Italic) C. Ctrl+B (Bold) D. Ctrl+D

Q-8 Shortcut key for full screen in Google Chrome?
A. F11 B. F5 (Reload) C. F10 (Open menu bar) D. F2

Q-9 ____ server acts as a set of components accessible to the software developer through an API defined by the platform itself.
A. Application B. Mail C. FTP D. Database

Q-10 ____ was the first browser to display images inline with text instead of displaying images in a separate window
A. Mozilla B. Mosaic C. Lynx D. Opera

Q-11 Which of the following is NOT an example of web browser?
A. Opera B. Google Chrome C. Apple Safari D. Facebook

Q-12 What is the purpose of a search engine on the internet?
A-12 To search and retrieve relevant information from the web

Q-13 Which of the following is the slowest type of internet service?
A. Dial up B. Satellite C. DSL D. 3G and 4G

Q-14 The first web browser to implement the omnibox was _____.
A. Mozilla Firefox B. Google Chrome C. Safari D. Linux
Omnibox - URL box - combines functions of address bar & search box

Q-15 Which of the following protocol is used for WWW?
A. FTP B. HTTP C. W3C D. None of these

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Q-16 Communication protocol used by the Internet is :-

A. HTTP B. WWW C. TCP/IP D. All of the above

Q-17 The first page that you normally view at a website is its—

A. Home Page B. Master Page C. First Page D. Banner Page

Q-18 A word that looks underlined on a Web page is usually:

A. An important word C. A 'link' to another

B. The web address D. A mistake web page

Q-19 The feature that fills up forms etc automatically with pre set values is called _____ .

A. Filter B. Auto Fill C. Fill UP D. None

Q-20 A user can get files from another computer on the Internet by using

A. FTP B. HTTP C. UTP D. None of these

Q-21 A host on the Internet finds another host by its:-

A. Postal Address C. IP Address

B. Electronic Address D. None of the above

Q-22 Which one of the following allows users to talk through the Internet on any PC receiving calls?

A Newsgroup B. Instant Messaging C. Internet telephony

D. Internet relay Chat

type of communication technology that allows voice calls, fax, SMS and voice messaging applications using internet

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Q-23 Which of the following types of internet services do not require cable or phone lines?

A. ISDN B. Dial up C. Satellite D. DSL

Q-24 The _____ tab shows all the websites and pages visited earlier

A. History B. Taskbar C. Status Bar D. Browser List

Q-25 In which year did the World Wide Web start?

A. 1959 B. 1989 C. 1969 D. 1979

Q-26 With regard to internet _____ is not a search engine.

A. Google B. Bing C. Somaiya D. Yahoo

Q-27 What is the size of Internet Protocol Version 6 protocol address

A. 128 bits B. 34 bits C. 68 bits D. 255 bits

Q-28 Which of the following is not an e-service?

A. M-Commerce B. E-commerce C. E-learning D. Electricity

Q-29 On Internet _____ is used to convert URLs to IP Addresses

A. Domain Name Session

B. Domail Name System

C. Domain Name System

D. Donaim Name System

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LECTURE-8
WORKING WITH INTERNET PART-2

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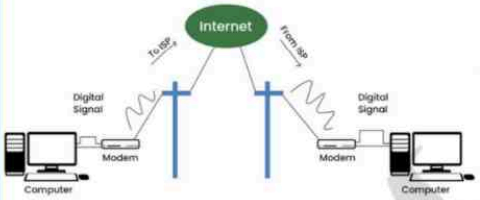

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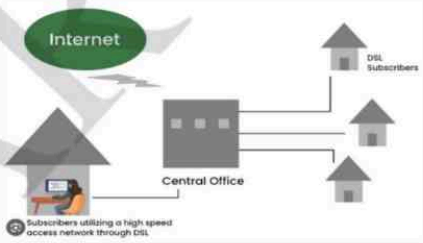

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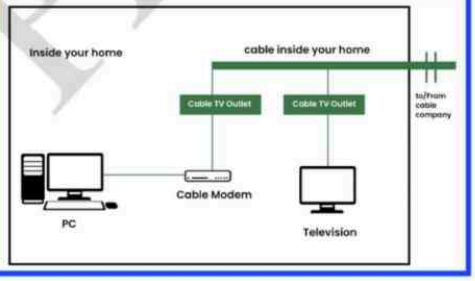

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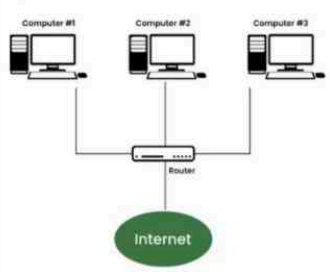

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Satellite Connection

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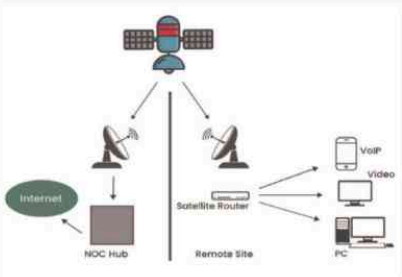
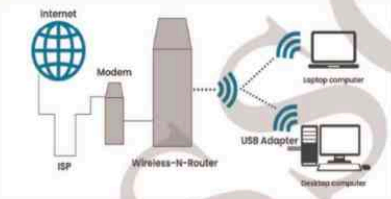
- access via satellite
- type of Wireless connection



Wireless Connection

- Does not require telephone lines or cables
- Uses radio frequency band
- Always ON, can be accessed from anywhere



Network Protocols

- **TCP** - Transmission Control Protocol - Reliable, error-checked delivery of data between applications
- **UDP** - User Datagram Protocol - Connectionless communication
  - Often used in streaming and gaming
- **IP** - Internet Protocol - Responsible for addressing & routing data packets - Two versions - IPv4 and IPv6
- **HTTP** - Hypertext Transfer Protocol - Transfer Web pages on internet
- **HTTPS** - HTTP Secure - Extension of HTTP
  - Uses SSL/TLS to encrypt data for secure communication
    - Secure Sockets Layer | Transport Layer Security
- **FTP** - File Transfer Protocol - Transfer files between computers
  - Supports both upload and download
- **SFTP** - SSH File Transfer Protocol
  - Secure Shell
  - Secure version of FTP - uses SSH to encrypt transfer of files
- **DNS** - Domain Name System - Translates domain names into IP addresses, enabling browsers to load internet resources.

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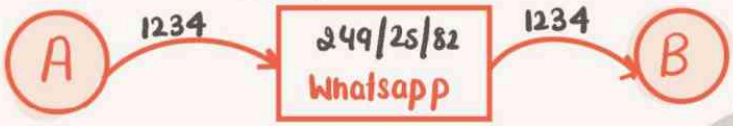
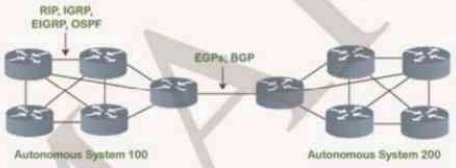
- DHCP - Dynamic Host Configuration Protocol
  Automatically assigns IP addresses to devices on a network
- TLS/SSL - Transport Layer Security / Secure Sockets Layer
  Protocol for encrypting data sent over a network



Encryption

- SSH - Secure Shell - Protocol for securely accessing network devices and servers over an unsecured network
- SNMP - Simple Network Management Protocol
- Telnet - Text based communication protocol - not secure
- BGP - Border Gateway Protocol - exchange routing information



- ICMP - Internet Control Message Protocol
  Used for network diagnostics and error reporting
  Commonly seen in the ping command

Search Engine :- Software that searches through a database of webpages for information. Search using keywords entered. Eg- Yahoo, Alta Vista, Hot bot, Web Crawler, Excite, Lycos, Magellan, Google, Bing, Infoseek, Duck Duck Go, Baidu, Yandex, Ask.com, Internet archive

* India's first Private Search Engine - Qmamu
  easy to use and fast running native Google has been named Qmamu (Kyu Mamu)

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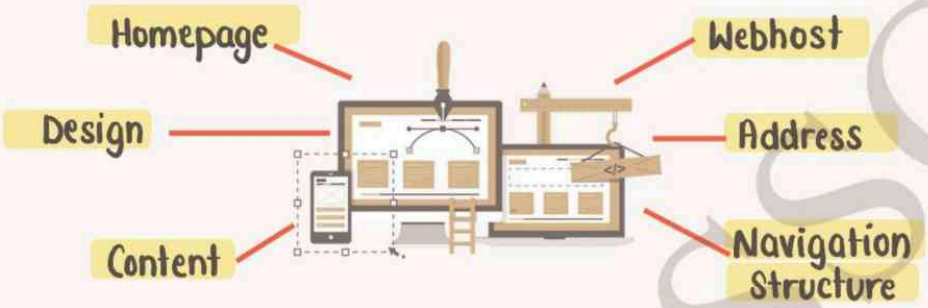
Websites :- Collection of webpages defined by common domain name and published on atleast one web server.

Components of a Website :



Types of Websites

Static Website	Dynamic Website
Webpages are returned by the server which are prebuilt source code files built using simple languages like HTML, CSS or Java Script	Web pages are returned by the server which is processed during runtime (not prebuilt) with the help of server-side scripting languages like PHP, Node.js, ASP.NET

Web Browser – Software application that provides functionality to a client to display and interact with text, images.

First Web Browser – worldwideweb (1990) – 'Nexus'

Mosaic – 1993 – 1st World's popular browser

Eg- Mosaic, Netscape Navigator, Internet Explorer, Lynx, Mozilla Firefox, Chrome, Edge, Safari, Opera, Sea Monkey, Maxathon, Vivaldi, Tor, Dooble, Brave (most secure), Amaya, UC Browser

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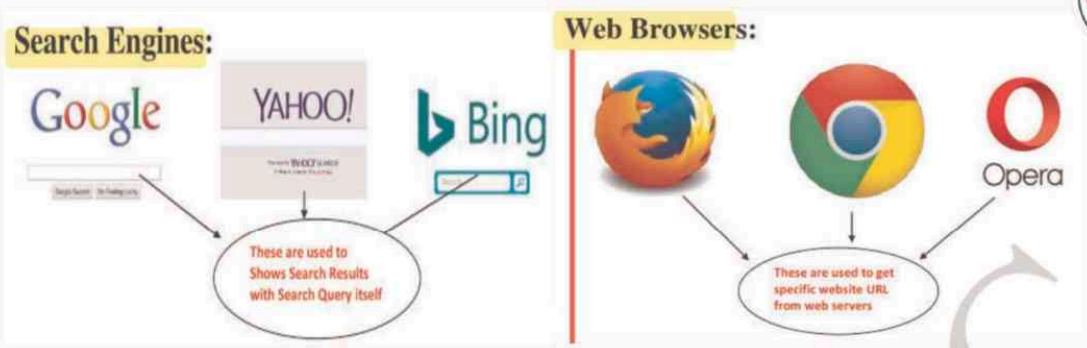
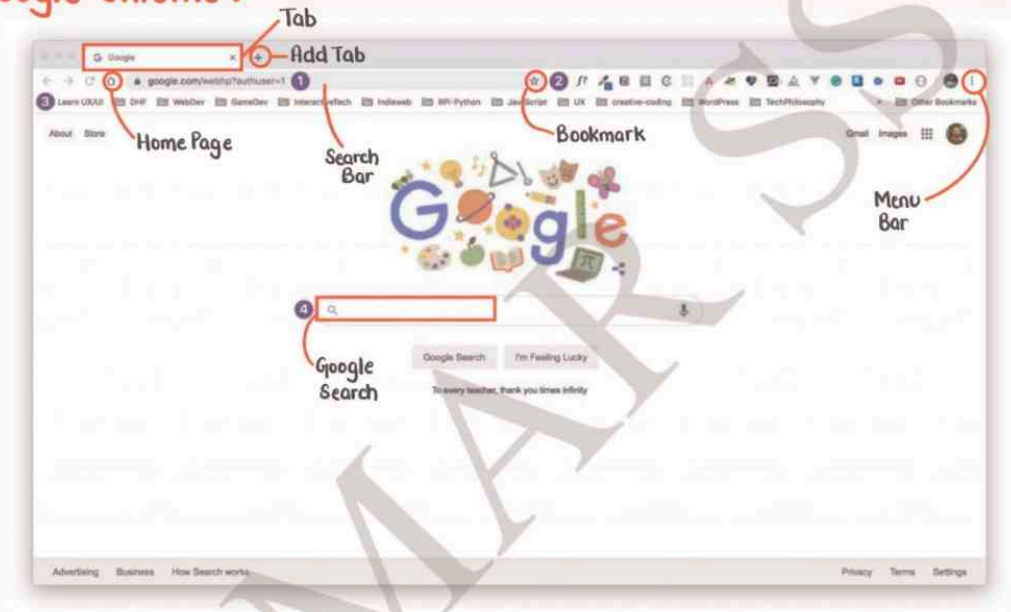


Google Chrome :-



Shortcut keys :-

- Open home page - Alt + Home
- Display current website in full-screen mode - F11
- Stop loading the page or a download from loading - Esc
- Zoom in/out of page - Ctrl + (+) / Ctrl + (-)
- Move to corresponding tab - Ctrl + 1/2/3/4 ···· etc (tabs)
- Switch to last tab - Ctrl + 9
- Open clear browsing data window to clear private data - Ctrl + Shift + Del
- Select everything on page - Ctrl + A
- Add bookmark to currently opened page - Ctrl + D
- Bookmark all pages - Ctrl + Shift + D

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- 'Find' bar to search - F6 ⇒ Ctrl+F
- Open browser history in new tab - Ctrl+H
- Display downloads window - Ctrl+J
- Open new browser window - Ctrl+N
- Open new incognito (private) window - Ctrl+Shift+N
- Print current page or frame - Ctrl+P
- Refresh current page or frame - F5 ⇒ Ctrl+R (Reload)
- Hard Refresh - Ctrl+F5
- Open 'Save As' window to save current page - Ctrl+S (HTML format)
- Open a new tab - Ctrl+T
- Reopen last tab closed - Ctrl+Shift+T
- Close current tab - Ctrl+W
- Close currently selected window - Ctrl+Shift+W
- Move through each tab to the right - Ctrl+Tab/ Ctrl+Page down
- Move through each tab to the left - Ctrl+Shift+Tab /Ctrl+Page up
- Task Manager - Shift+Esc

Common Error messages from a browser :

- 52 Runtime Error
- 400 Bad File Request
- 401 Unauthorized
- 403 Forbidden| Access denied
- 404 File not Found
- 408 Request Timeout
- 500 Internal Server Error
- 501 NOT Implemented
- 502 Service Temporarily Overloaded
- 503 Service Unavailable
- Bad File Request
- Unable to Locate Host
- Host Unavailable
- Connection Refused by Host
- Errors on Page
- Script Error
- Runtime Error
- Failed DNS Lookup
- File Contains No Data
- Network Connection refused by Server

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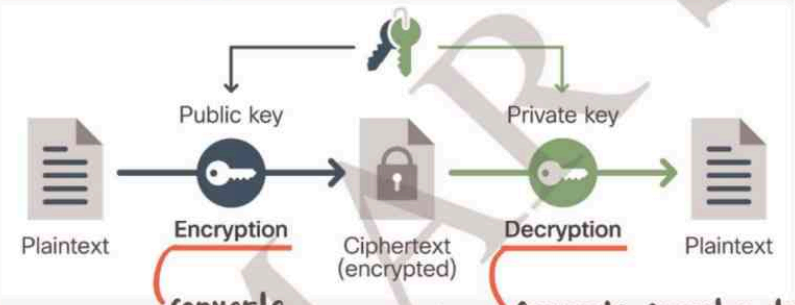
Blogs – Managed by an individual or a small group of people.
Articles on some topic like fashion, travel, music, fitness etc.

Chat – Communication done with the help of internet which transmit text messages from sender to receiver
Types : Instant, Internet Relay Chat, Voice , Video
Platforms : Yahoo messenger, Google talk, Facebook, Hike, Whatsapp, Skype, Telegram, Snapchat

Encryption and Decryption :



Encryption – converts plain text to secret code
Decryption – converts secret code to plain text

Video Conferencing – Internet service for meeting people and talk via video communication from anywhere
Platforms : Google meet, Starleaf, Goto Meeting, Skype, Zoom, Microsoft meeting

Social Networking – Way of connecting people from around the world online, to share views and ideas
Platforms - Facebook, Orkut, Twitter, Google+, LinkedIn, Badoo, Meetup, Ning

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E-Banking – Facility to make online transactions
Eg- Paying Bills, Donations to charities etc
Types : (i) Mobile & Internet Banking
(ii) Credit and Debit Cards
(iii) ATMs – Ist e-banking service provided by banks

Types : **EDI** – Electronic Data Interchange
Restricted to Business Transactions
Paperless and seamless transaction

EFT – Electronic Fund Transfer
transfer money from one account to another

Modes : (i) **NEFT** – National Electronic Fund Transfer
(ii) **IMPS** – Immediate Payment Service
(iii) **RTGS** – Real Time Gross Settlement

BASIS OF COMPARISON	NEFT	RTGS	IMPS
Minimum transfer value	Re. 1	Rs. 2 lakh	Re. 1
Payment options	Online and offline	Online and offline	Online
Maximum transfer value	No limit	No limit	Rs.2 lakh
Settlement type	Half hourly basis	Real time	Real time
Inward transaction charges	No charges	No charges	Decided by the individual member banks and PPIs

- **UPI** – Unified Payment Interface
- **BHIM** – Bharat Interface for money
- **NPCI** – National Payment Corporation of India

Data Communication Exchange of data between two devices via some form of transmission medium like wire cable.

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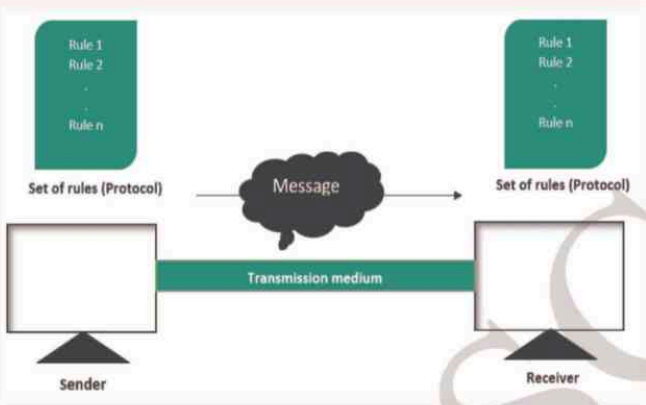
Components :-

(i) Message
(ii) Sender
(iii) Receiver
(iv) Transmission medium
(v) Set of Rules

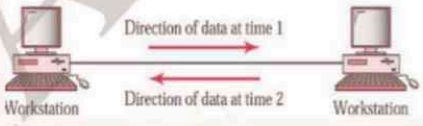


3-TYPES OF COMMUNICATION MODES

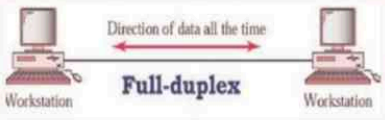
1 **Simplex Mode** – Eg- cabled keyboard, TV
Data only moves in one direction (from A to B)

Only transmit Keystrokes

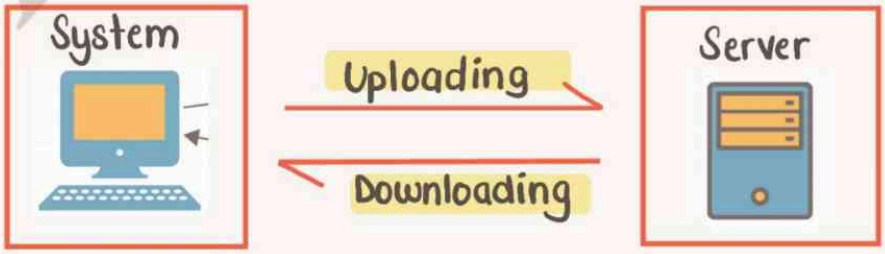
2 **Half Duplex Mode** – Eg. Walkie-talkie
Data travels in one direction (from A to B) and then the other direction (from B to A) but not at the same time.



3 **Full Duplex Mode** – Eg. telephone call
At the same time, data can move both directions.



Uploading and Downloading :-



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Questions

Q-1 What is the shortcut key to open a new tab in google chrome

A Ctrl+T

B Ctrl+K – to toggle the search bar

C. Ctrl+N – Open a new window

D. Ctrl+S – to save the current page

Q-2 Which of the following is a web browser developed by Microsoft ?

A. Opera ⟶ 1995 – Opera Software

B. Chrome ⟶ Google Chrome – 2008

C. Edge ⟶ Microsoft – 2015

D. Brave ⟶ 2016 – Brave Software

Q-3 While _____ data transfers from the customer's machine to the server. — Uploading

Q-4 Which of the following is shortcut to reload current page in Google?

A. F7 – turn on Caret Browsing B. F5 – Ctrl+R (Reload) C. F1 – Help D F3 – Open search bar to search for text on webpage

Q-5 Which is graphical web browser developed by Apple ?

A. Safari B. Firefox C. Chrome D. Edge

Q-6 In web browser, Which is responsible for displaying web pages?

A. Server B. Rendering Engine C. Page Engine D. Search Engine

Q-7 Which is shortcut key to bookmark current webpage on web browser.

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A. Ctrl+N - New window B. Ctrl+I (Italic) C. Ctrl+B (Bold) D. Ctrl+D

Q-8 Shortcut key for full screen in Google Chrome?
A. F11 B. F5 (Reload) C. F10 (Open menu bar) D. F2

Q-9 ____ server acts as a set of components accessible to the software developer through an API defined by the platform itself.
A. Application B. Mail C. FTP D. Database

Q-10 ____ was the first browser to display images inline with text instead of displaying images in a separate window
A. Mozilla B. Mosaic C. Lynx D. Opera

Q-11 Which of the following is NOT an example of web browser?
A. Opera B. Google Chrome C. Apple Safari D. Facebook

Q-12 What is the purpose of a search engine on the internet?
A-12 To search and retrieve relevant information from the web

Q-13 Which of the following is the slowest type of internet service?
A. Dial up B. Satellite C. DSL D. 3G and 4G

Q-14 The first web browser to implement the omnibox was _____.
A. Mozilla Firefox B. Google Chrome C. Safari D. Linux
Omnibox - URL box - combines functions of address bar & search box

Q-15 Which of the following protocol is used for WWW?
A. FTP B. HTTP C. W3C D. None of these

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Q-16 Communication protocol used by the Internet is :-

A. HTTP B. WWW C. TCP/IP D. All of the above

Q-17 The first page that you normally view at a website is its—

A. Home Page B. Master Page C. First Page D. Banner Page

Q-18 A word that looks underlined on a Web page is usually:

A. An important word C. A 'link' to another

B. The web address D. A mistake web page

Q-19 The feature that fills up forms etc automatically with pre set values is called _____ .

A. Filter B. Auto Fill C. Fill UP D. None

Q-20 A user can get files from another computer on the Internet by using

A. FTP B. HTTP C. UTP D. None of these

Q-21 A host on the Internet finds another host by its:-

A. Postal Address C. IP Address

B. Electronic Address D. None of the above

Q-22 Which one of the following allows users to talk through the Internet on any PC receiving calls?

A Newsgroup B. Instant Messaging C. Internet telephony

D. Internet relay Chat

type of communication technology that allows voice calls, fax, SMS and voice messaging applications using internet

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Q-23 Which of the following types of internet services do not require cable or phone lines?

A. ISDN B. Dial up C. Satellite D. DSL

Q-24 The _____ tab shows all the websites and pages visited earlier

A. History B. Taskbar C. Status Bar D. Browser List

Q-25 In which year did the World Wide Web start?

A. 1959 B. 1989 C. 1969 D. 1979

Q-26 With regard to internet _____ is not a search engine.

A. Google B. Bing C. Somaiya D. Yahoo

Q-27 What is the size of Internet Protocol Version 6 protocol address

A. 128 bits B. 34 bits C. 68 bits D. 255 bits

Q-28 Which of the following is not an e-service?

A. M-Commerce B. E-commerce C. E-learning D. Electricity

Q-29 On Internet _____ is used to convert URLs to IP Addresses

A. Domain Name Session

B. Domail Name System

C. Domain Name System

D. Donaim Name System

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LECTURE-9
EMAIL

Electronic mail (Email)

- Internet Service to share text/image/audio/video to other people across the world
- Shared using email addresses

Service Providers – Gmail, Outlook, Mozilla Thunderbird, Yahoo mail, Mail.com, Fast mail, Zoho mail, Brevo, Titan, Apple Mail, Yandex-.Mail, Mailfence

Gmail
Email Service Provider
Developed by Google

Difference

Email: A method of exchanging digital messages between people using internet

Gmail: A free, advertising supported email service developed by Google

History of Email

1971

First email sent by Ray Tomilson using ARPANET – FTP
Father of Email

1983

SMTP- Simple Mail Transfer Protocol introduced – Used TCP/IP

Email Protocols

1. **SMTP** – Simple Mail Transfer Protocol – Protocol used – TCP/IP
   Used to send mail over internet

2. **POP3** – Post Office Protocol ③ – Version 3
   Used to receive/retrieve mail

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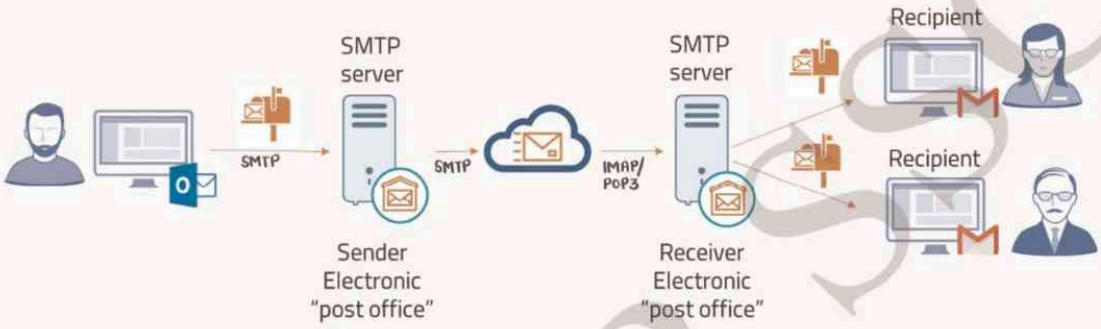
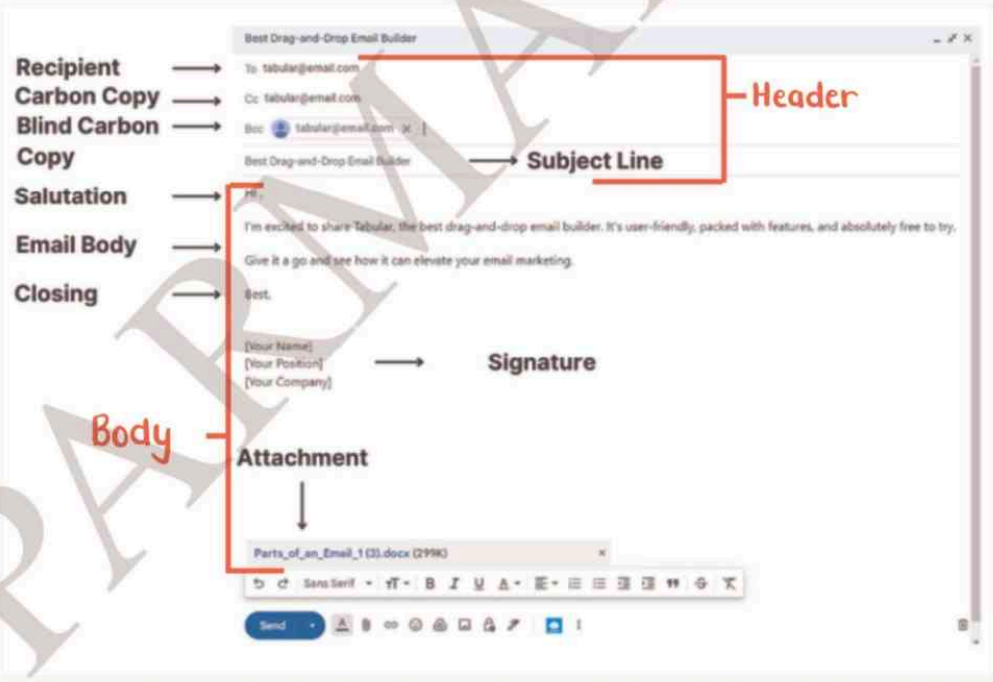
3 **IMAP** – Internet Mail Access Protocol
Allows to access email without downloading files

4 **MIME** – Multipurpose Internet Mail Extention
Allow user to send/receive data such as images/audio/video



Structure of Email



Format of email address

username — domain/email service provider

parmaracademy@gmail.com

@ symbol

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Rules for creating email address :

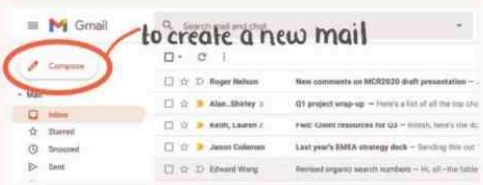
1. Username - (6-64) characters — vary for diff. service providers
   - Gmail - (6-30) characters
2. Characters - (A to Z), (a-z), (0-9), (.), (-), (_) underscore
3. No special characters like &, =, <, >, +
4. No space
5. @ used only once
6. No special character in starting

Header

- **To-** Recipient's email address
- **CC-** Carbon Copy - CC of mail sent to other recipient
- **BCC-** Blind Carbon Copy - BCC of mail sent to other recipient so that the recipient of BCC is not visible to other recipients
- **From-** Sender's email address
- **Subject-** Purpose of mail
- **Body-** Content of mail
- **Attachment-** Email content other than in the form of text. Eg- image/ document/ spread sheet/ video etc.

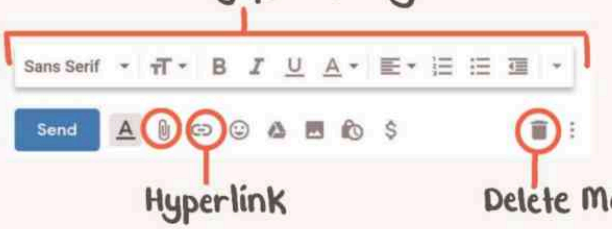
How to send a new mail :

click compose



Add attachment

click paper pin symbol



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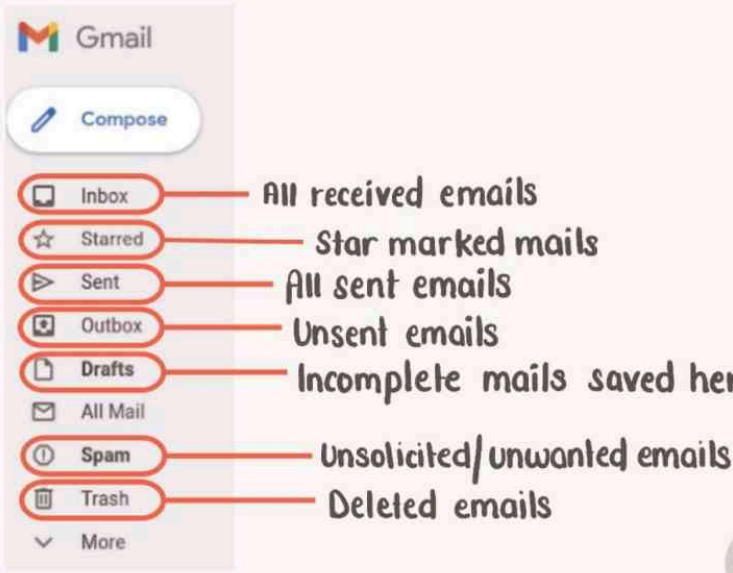

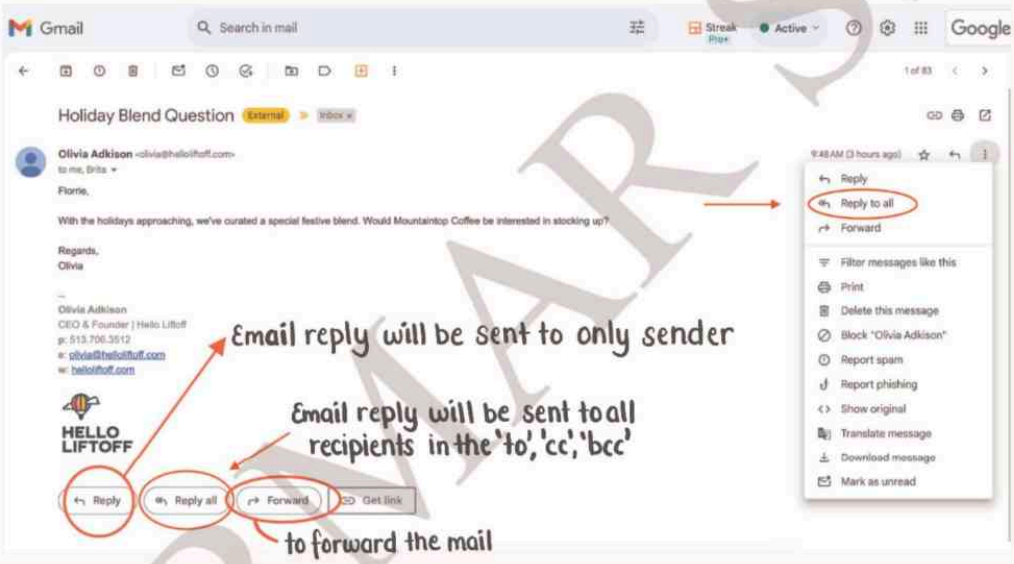

Questions

Q-1 Which network protocol is used to send e-mail?

A. STP B. SSH C. POP3 - Receive D. SMTP - Simple Mail transfer Protocol

Q-2 A simple protocol used for fetching e-mail from a mail box is

A. IMAP B. POP2 receive C. POP3 - Post office Protocol D. SMTP - Send

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Q-3 Which of the following is not suitable in the context of E-mail?

A. It is a letter sent over a computer network

B. It can be used to send unsolicited messages

C. Email is snail mail

D. Email address includes domain name

Q-4 SMTP is a simple TCP/IP Protocol

Q-5 Which of the following is a valid email?

A. enquiries.guilds.co.@.uk – .@. X

B. Sales @ enquiries. guilds. co.uk

C. @ sales .enquiries . guilds . co. uk – @ in first place X

D. sales . enquires . guilds . co.uk – no@ X

Q-6 Which is the proper option for sending the time table to the parents?

A. Blog B. Chatting C. E-mail D. Forum

Q-7 Convenient place to store contact info for quick retrieval in email is:

A-7 Address Book

Q-8 On the basis of structure and function identify the odd one out:

A. LinkedIn B. G-mail C. myspace D. Facebook

Social media Platforms

Q-9 What do we call unsolicited/undesired email? Spam

Q-10 Which of the following is an email software?

A. Excel B. Paint C. Word D. Outlook - Microsoft

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Q-11 What is email attachment size limit in Gmail? 25 MB

Q-12 Which icon is used to add an attachment to email? Paper Clip Icon

Q-13 save as draft Option helps you to save an unfinished email without sending it.

Q-14 Attachments allows user to send a file with email.

Q-15 What is the use of carbon copy (cc)?

A-15 Recipients are visible to other recipients of the message in CC.

Q-16 What is included in an email address?

A-16 User's name followed by domain name

Q-17 To send a received mail to another person, you need to forward it.

Q-18 Which of the following is mandatory for sending an email?

A. Body B. Sender mail ID C. Attachment D. Subject

Q-19 A block of text automatically added to the end of an outgoing email is called an/a signature.

Q-20 Who is the father of email? Ray Tomilson

└ 1971 - ARPANET - Sent 1st mail

Q-21 Shortcut to send a composed mail — Ctrl + Enter

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Q-22 Which of the following is Not an example of email service provider?
I Outlook II. Gmail III. Yandex
A-22 All are email service providers

Q-23 Which of the following option can be pressed to create a new email message in Gmail?
A Settings B. Outbound C. Compose D. Drafts (incomplete mails)

Q-24 In Gmail, what do you use when you receive a mail and want to send the mail in response of the same mail and to the original sender only? Reply

Q-25 Which one of the following folders is used to store deleted emails?
A. Trash B. Spam C. Inbox - Received Mails D. Drafts

Q-26 Which of the following fields cannot be left blank while composing and sending e-mails?
A-26 "To" – Recipient's Mail Address

Q-27 If you are replying to an email, which of the following fields is automatically filled? "To" and "From" Fields

Q-28 Which statement is incorrect?
I. Email address can only contain @ once.
II. CC and BCC are same only the recipient are kept confidential
A-28 Both I. and II. are correct

Q-29 If an email is written and not sent to any user, it is usually, stored in a folder called – Draft

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Q-30 When email is sent by a user to another user, the sender will usually find it in the Sent email folder. — Inbox

Q-31 Which statement is incorrect about sending file attachments using email?

A. Attachments can be any type of file, including video file, provided the size of attachment is below maximum limit.

B. Email Servers and email clients often limit the size of attachments

C. A word document and a spreadsheet file cannot be sent as attachments in a single image

D. Power Point presentations can be sent as attachments using e-mail

Q-32 Which of the following is not a valid email address?

A. rekha @ menon @ gmail.com

B. Chitralekha_123 @ vikas.in

C. NARSIMHA @ OUTLOOK.COM

D. Aniruddha.Banerjee @ms.in

Q-33 Which option allows a client program to modify email messages on server without downloading them to local computer?- IMAP

Q-34 Which file category is not allowed to be sent as email attachments?

A. .ZIP Files B. RAR Files C. EXE or .BIN Files (executable files) D. .DOC Files

Q-35 We can send the same e-mail to many people at once by separating their e-mail addresses by commas (,).

Q-36 Online conversation in which we can send and receive instant messages to each other is called Chat.

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Q-37 e-mail-"abcdef.gmail.com' is invalid because- no use of @

Q-38 Which of the following is not an e-mail related protocol?
A. FTP B. IMAP C. SMTP D. POP

Q-39 Service that allows us to send messages in electronic mode over the internet with a unique address. It offers efficient, cheap, real time means of distributing information? E-mail

Q-40 Mail access starts with client when user needs to download email from Mail Box .

Q-41 Correct statement about Blind Carbon Copy (Bcc) in Gmail?
A-41 It is used for sharing a copy of email to someone without letting the primary recipient know about it

Q-42 Which of the following is not an Internet Etiquette?
A-42 Forwarding unwanted messages

Q-43 Unsolicited and unwanted junk email sent out in bulk to an indiscriminate recipient list is stored in Spam folder.

Q-44 In Gmail, What do you use when you receive a message and want to send the message to someone not in the "To" or "CC"? Forward

Q-45 Which of the following is not a web mail provider?
A. Outlook B. Gmail C. Yahoo D. Baidu - Web Browser

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Q-46 The Subject field in an e-mail indicates the purpose of that e-mail.

Q-47 The To field of an email indicates the receiver of that email

Q-48 In Gmail, What is used when you receive a message and want to send the new message to the original sender and all other recipient on the To and CC lines?

A. Reply All B. Forward C. Reply D. Forward All

Q-49 Which of the following is a valid email address?

A. John 123@.net

B. myschool @gmail.com

C. abc @ def @ gmail.com

D. @ domainname.com

Q-50 the From field indicates the sender's address i.e. Who sent the email.

Q-51 You can star an email if you want to remember it is important and this also puts the email into a special folder for easy access.

Q-52 Gmail.com, yahoo.com, yahoo.co.in, ymail.com, rediff.com, rediff mail.com, fastmail.fm etc. are email servers.

Q-53 What do we call the people we send an email to?

A. Recipients B. SPAM C. Contacts D. Sender

Q-54 In MS Office, _____ is the software for managing emails.

A. MS Publisher B. MS Access C. MS Outlook D. None

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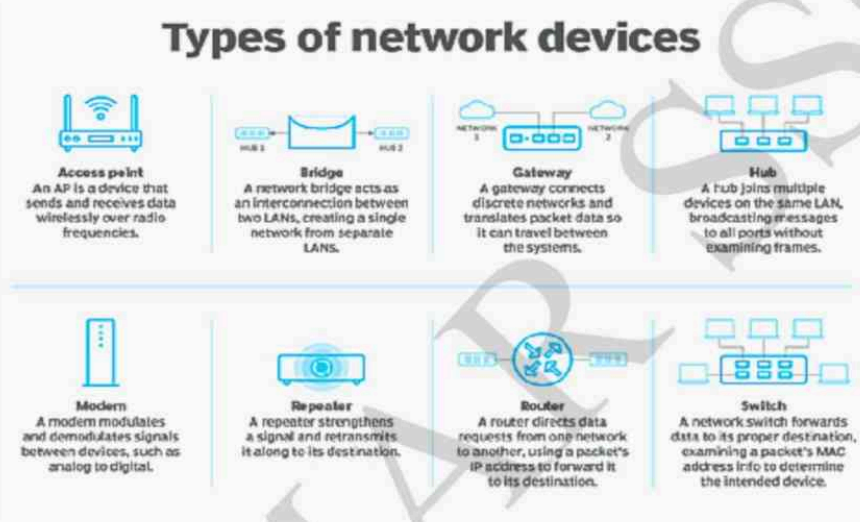
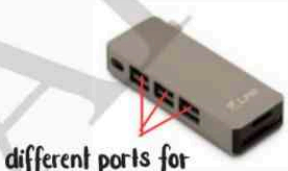
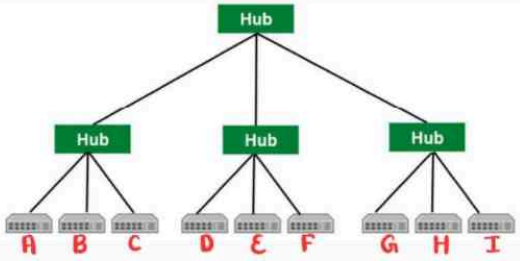
LECTURE-10
NETWORKING DEVICES

Networking devices help to send and receive data between different devices on LAN/WAN.
Local/Wide Area network



1. **Hub**
   - multiport repeater
   - connects multiple wires from different branches
   - cannot filter data
   - do not have intelligence → inefficiencies and wastage


different ports for different devices



2. **Gateway**
   - passage to connect two networks of different models
   - collect – interpret – transfer data
   - Also called protocol converters
   - can operate at any network layer

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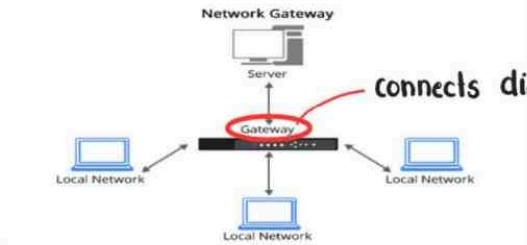
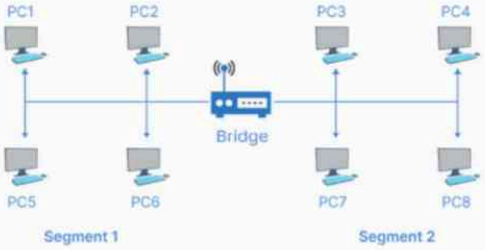


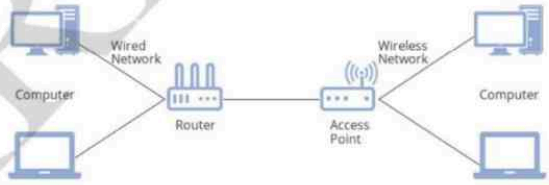
connects discrete networks

3 **Bridge**
- interconnect two separate LANs (similar or dissimilar)
- operates at data link layer
- has single input and single output port

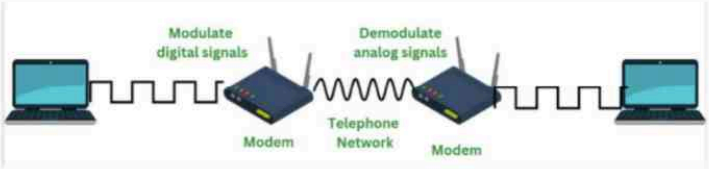


MAC Address- Media Access Control
- works on Local networks

4. **Access Point**
- sends and receive data wirelessly
- creates Wi-Fi network and let wireless devices communicate with internet
- Used to extend range of a network / provide Wi Fi
- commonly found in homes, offices, public places etc



5 **Modem**
- Modulator Demodulator
- Converts digital signal into analog signals
- signals can be transmitted over cable, telephone lines etc.



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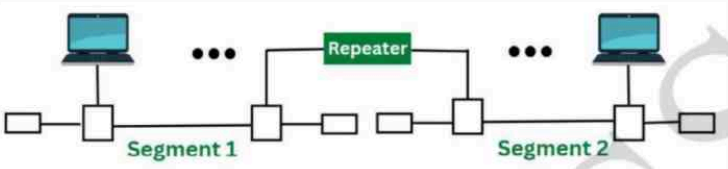
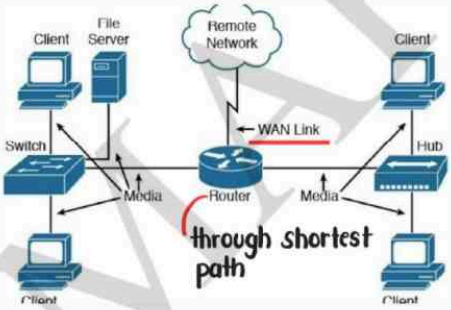
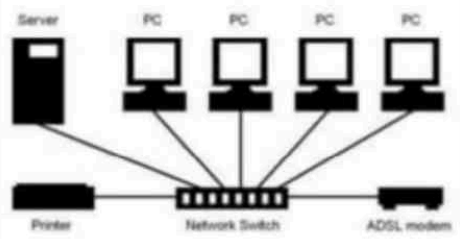
6. **Repeater**
- operates at physical layer
- regenerate signal over the same network
- do not amplify the signal
- 2-port device
- can be used to create a single extended LAN



7. **Router**
- routes data packets based on their IP Addresses
- Network layer device – WAN network
- divides the broadcast domains of hosts connected



8. **Switch**
- Data link layer device
- Multiport Bridge with a buffer and high effciency
- Perform error checking before forwarding data based on MAC addresses
- Divides collision domain of hosts, but broadcast domain remains the same.



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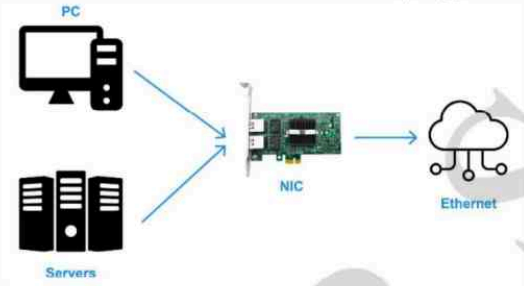
9. NIC
- Network Interface Card
- Network adapter used to connect computer to network
- Installed in computer to establish LAN
- Has unique Id on the chip
- Cable acts as an interface b|w computer and router/modem
- layer 2 device – works on both physical & data link layer



No.	Layer	Function	Data unit	Hardware
7	Application <HTTP>	Human-computer interaction through applications that access network services	Message/data	Gateway
6	Presentation SSL	Data formatting and encryption/ decryption	Message/data	Gateway redirector
5	Session BIOS	Inter-host communication	Message/data	Gateway
4	Transport	Data transmission	TCP: segment; UDP: datagram	Gateway
3	Network	Path determination and logical addressing	Packet, datagram	Router, Brouter Gateway, layer 3 switches
2	Data Link	Physical addressing	Frame, cell	Switch, bridge, NIC layer 2 switches, Gateway
1	Physical	Binary signal transmission over physical media	Bit, frame	Cables, modem, hub, repeater, NIC, multiplexer Bridges Gateway

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Questions

Q-1 ____ is a passage to connect two networks that may work on different networking models.

A. Router B. Switch **C. Gateway** D. Hub

Q-2 A ____ is a networking device that filters network traffic while connecting multiple computers or communicating devices

A. Repeater B. Distributor **C. Switch** D. Router

Q-3 Which networking device operates at layer 2 of OSI model and forward data based on MAC addresses?

A. Firewall B. Hub C. Router **D. Switch**

Q-4 A _____ is used to transfer data packets b/w two computer networks

A. Switch **B. Router** C. Browter D. Gateway

Q-5 _____ is also known as protocol convertor.

A. Hub B. Bridge C. Switch **D. Gateway**

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LECTURE-11
CYBERSECURITY

Computer Networking- collection of interconnected devices that share resources and information

Basic Terminologies of Computer Networks:

Network - connection of devices for sharing of data

Nodes - devices connected to a network. Eg- Server, printer, computer etc

Host - device on network that can send/receive data

Client - Computer/Program that requests service from a server

Server - Device/Program that provides services to others over a network.

Protocol- set of rules that governs how data is transmitted over a network.

Topology - physical and logical arrangement of nodes on a network.

Service Provider Networks - give permission to take network capacity & functionality on lease from the Provider
- ISP- Internet Service Providers

IP Address - unique numerical identifier that is assigned to every device on a network
- Internet protocol

DNS - Domain Name System - protocol used to translate human readable domain names into IP addresses.

Firewall - security device used to monitor and control incoming & outgoing network traffic
Protects network from unauthorised access & security threats

Types of networks

1. LAN (Local)
2. WAN (Wide)
3. PAN (Personal)
4. MAN (Metropolitan)
5. WLAN (Wireless)
6. VPN (Virtual Private)
7. CAN (Campus)
8. SAN (Storage)

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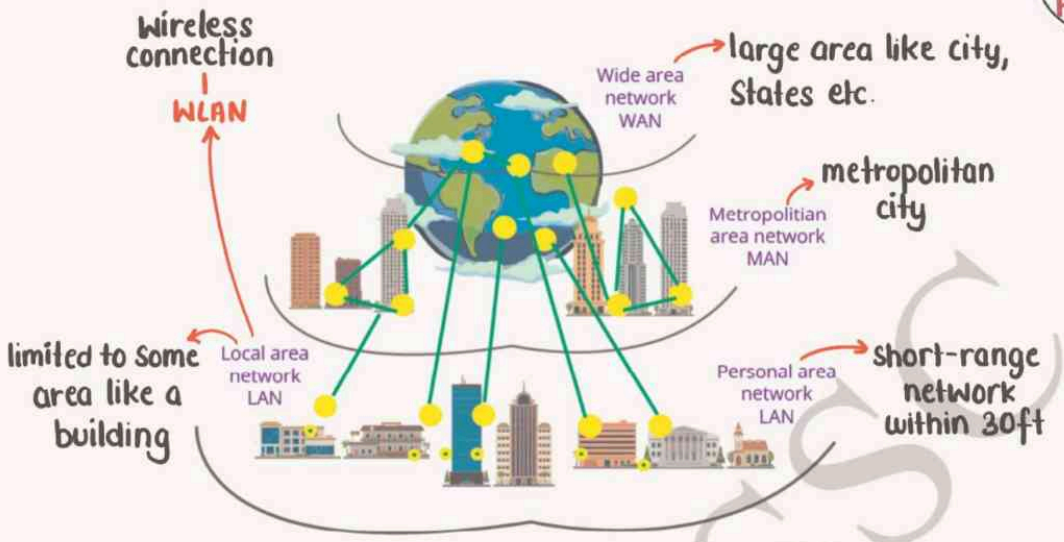
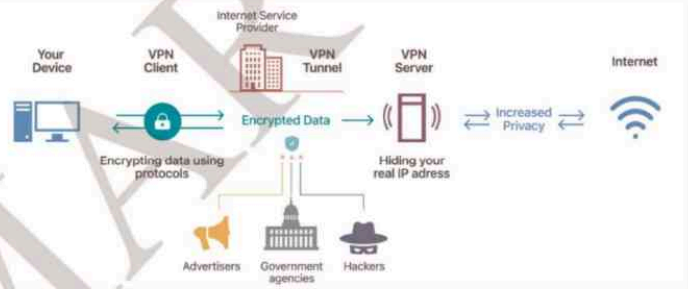
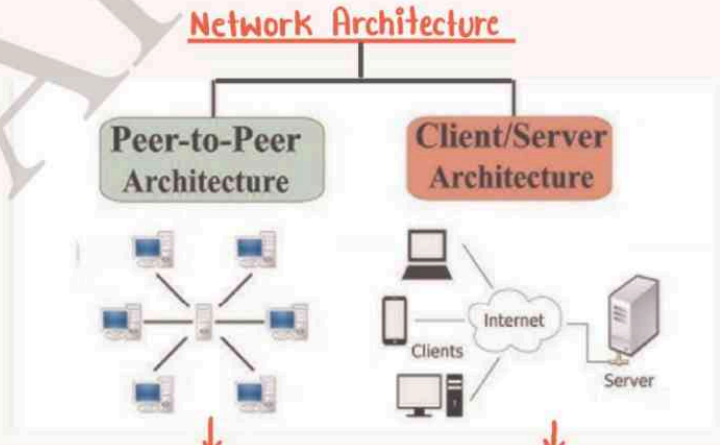


- VPN - Virtual Private Network - to establish secure connection

  Providers - Express VPN, Nord VPN, Surfshark, Cyber Ghost, Proton VPN etc



- CAN - Campus Area Network - used by education districts or universities
- SAN - Storage Area network - network-based storage



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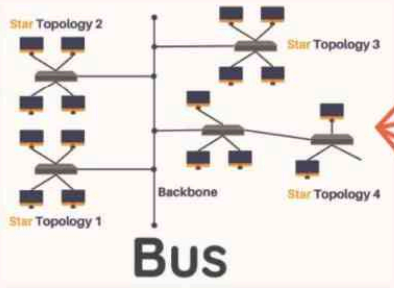
Network Topology

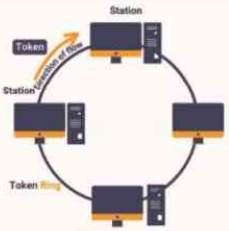
1



Bus

- Bi-directional
- Multipoint Connection
- Non robust topology
- Connected through single cable

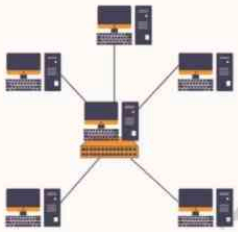
2.



Ring

- closed loop shape
- uni-directional
- non-robust topology

3.

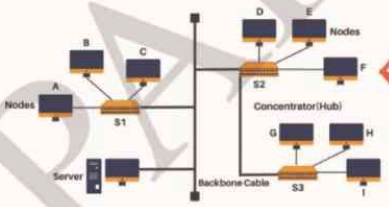


Star

- connected to a single hub
- all nodes connected to central node
- robust topology

4

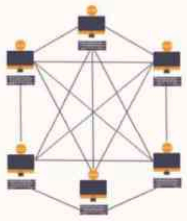
Tree



- several star topologies connected to central node
- Combination of bus and star topology
- connected one to one in hierarchy

5.

Mesh



- interconnected devices
- connected via dedicated channels known as links

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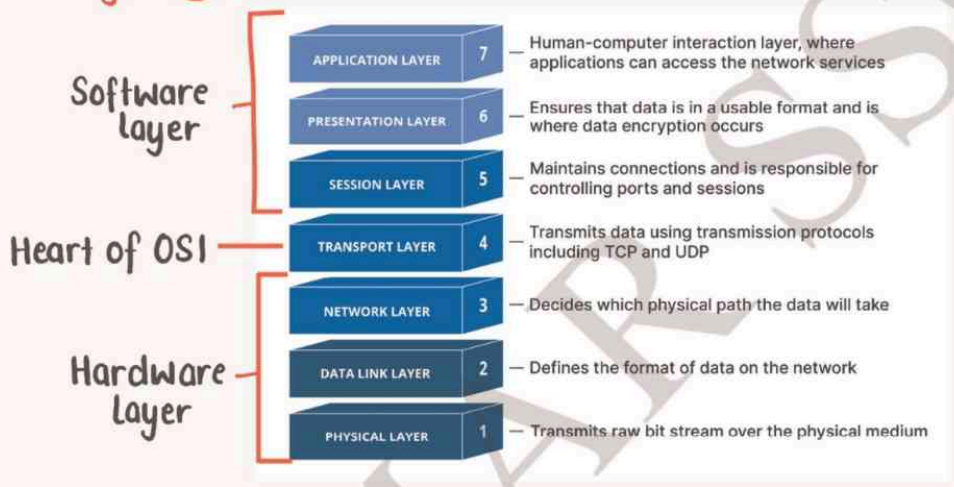
Communication Model

1 OSI Model — Open System Interconnection Model
- Reference model for how application communicates over a network
- Guide vendor & developers

Layers - 7



2. TCP/IP Model — defines how devices should transmit data b/w them and enables communication over networks

Layers - 4

Cybersecurity

Branch of information technology known as information security which is intended to protect computers. It is protection of computing systems and data they store.

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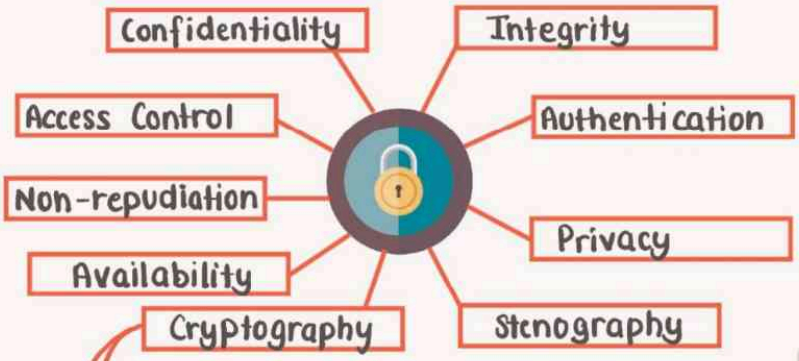
Components of Cybersecurity–



- **Plain text-** original message that is an input
- **Cipher** - bit by bit or character by character transformation
- Cipher text – coded message or encrypted data
- Encryption - process of converting plain text to cipher
- Decryption - Reverse process of encryption

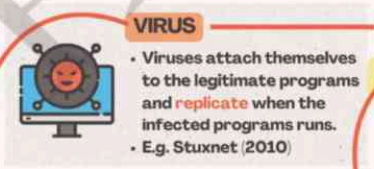
Sources of Cyber Attack–

- ✓ Downloadable Programs
- ✓ Cracked Software
- ✓ E-mail Attachments
- ✓ Internet
- ✓ Booting from unknown CD

Malware — Malicious Software

Program to damage computer system, gather sensitive information, gain access to private computer system

Types of Malware



Types

1. **Boot Sector Virus** – infects boot sector of Floppy discs or Master Boot Record (MBR) of hard disks.

vital Information Resource under seize

either overwrites existing program or copies itself to another part of the disk

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2. **Direct Action Virus** — attaches itself directly to a .exe or .com file and enters the device while its execution
   - Also called Non-Resident Virus
3. **Resident Virus** — It access memory and sit dormant until a payload is delivered
   - It is hidden in computer memory
4. **Multipartite Virus** — Can attack both boot sector and executable files of an already infected computer
5. **Overwrite Virus** — Can completely remove existing program and replace it with malicious code by overwriting
6. **Polymorphic Virus** — Spread through spam and infected websites
   - Are complex and hard to detect
   - Create modified/ morphed version of program
7. **File Infector Virus** — First infects a single file and later spreads
   - Main source is games and word processors
8. **Spacefiller Virus** — It fills empty spaces of a file with viruses
   - Known as Cavity Virus
   - Cannot be detected easily
9. **Macro Virus** — Written in same macro language as used in the software program
   - Main source is via emails

WORM

- Programs that replicate & spread across a network independently.
- Don't need to attach to files, unlike viruses.
- E.g. Conficker (2008)

- disguised as legitimate work file
- Eg- Mydoom, I LOVE YOU, SQL Slammer, Storm, Worm, Dugu, Stuxnet, Flame

RANSOMWARE

- Encrypts files on a victim's system and demands a ransom for decryption keys.
- E.g. AKIRA

- Eg- WannaCry, AIDS Trojan, Cryptolocker, CryptoWall, Jigsaw, Petya, Locky, Ryuk, Cerber, Reveton, Bad Rabbit etc

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BOTNETS

- Networks of infected computers controlled remotely by a single entity.
- E.g. Mariposa

self replicating malware

Often used in DDoS attacks

SPYWARE

- Secretly monitors user activities, capturing keystrokes, browsing habits, and personal information.
- E.g. Pegasus

ADWARE

- Adware displays unwanted advertisements on a user's computer, often in the form of pop-up ads.
- E.g. Superfish

KEYLOGGERS

- Records keystrokes on a computer to capture sensitive information like passwords, credit card numbers, and personal data.
- E.g. DarkTequila

TROJAN HORSE

- Disguises themselves as legitimate software.
- Once inside a system, they create a backdoor for attackers
- E.g. Zeus

ROOTKITS

- Are designed to conceal malicious software and processes.
- Operates stealthily within a compromised system.
- E.g. Sony BMG Rootkit (2005)

Fireless Malware - Cyberattack broadly describes malware that doesn't rely on files

Some other terms related to security

1 Spoofing — technique to access unauthorised data without concerning to the authorised user.
Also called Masquerade.
IP spoofing is process to access other's computer by accessing its IP address

2. Hacking — Act of intruding into someone's computer or network
It may result in Denial of Service (DoS) attack

3 Hacker — Someone who tries to break into computer system
Term means clever programmer

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White hacker or White Unicorn
Authorised or certified hacker who work governments and companies to ensure and protect from malicious cyberattacks

Black hacker
They reach unauthorised access in companies systems and destroy or steal private data and information, as well as attack vulnerabilities with malicious intent

Gray hacker
They are not legally authorised hackers. They work with both good and bad intentions. They can use their skills for personal gain

Red hacker
They are also authorised or certified hackers, but they specifically work for the governments, and their main objective is to identify black hackers, cyberterrorists, hacktivists, whistleblowers, and State-nation hackers

Script Kiddies
A novice hacker who uses scripts or downloads tools available to attack computer systems and networks and deface websites. His/her main purpose is to impress his/her friends and society

Blue hacker
They are much like the white hackers. Although, they are outsourced by firms and working for companies for security testing of their software right before the product launch

3. **Cracking** — Act of breaking into computers.
   Cracking tools – password crackers, trojans, viruses, war-dialers etc
4. **Phishing** — Fraudulent acquisition of sensitive information such as passwords, credit cards details etc
5. **Spam** — Abuse of messaging systems to send unsolicited bulk messages in the form of E-mails.
6. **MITM** — Man-in-the-Middle
   Hacker places himself in between the communication of two parties and steals information.
7. **DDOS** — Distributed Denial of Service
   It causes the servers to refuse to provide services to genuine clients

Flooding Attacks
Hackers send huge traffic to server that it cannot handle

Crash Attacks
Hackers exploit a bug on server to crash it

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Solutions to Computer Security Threats

1. **Antivirus Software** — Prevent, detect, Remove viruses and other malicious softwares.
   Eg- Avast, Avg, K7, Kaspersky, Trend Micro, Quick Heal, Symantec, Norton, McAfee etc.
2. **Firewall** — Controls the incoming and outgoing network traffic by analysing data packets.

Types

- **Packet Filter:** Control network access by monitoring outgoing & incoming packets.

  Also called Static firewall
- **Application Layer Firewalls:** Examine application layer information like an HTTP Request

  Blocks suspicious applications
- **Next generation Firewall:** Perform all tasks that are performed by other types of firewalls.

  Called intelligent firewalls
- **Circuit level Gateways:** Provides User Datagram Protocol (UDP) & TCP connection security.

  Works b/w OSI transport & application layer
- **Stateful Inspection Firewalls:** Packet filtering used to control how packets move through a firewall.

  Also called dynamic packet filtering
  Permits communication when session is perfectly established b/w two end points

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- **Hardware Firewall:** Physical appliance that is deployed to enforce a network boundary. All network links crossing this boundary pass through firewall.

Important Points

- Brain was the first PC boot sector virus created in 1986.
- Creeper was the first computer virus created in 1971
- Software Piracy means copying of data or computer software without the owner's permission.

Questions

Q-1 Trojan Horse is a type of malware that is often disguised/legitimate.

Q-2 Someone who tests security issues for bugs before launching a system or application and who is not a part of that organization or company are Blue Hat Hackers.

Q-3 Resident viruses are embedded in a system's memory so it can be reactivated if the original virus is deleted.

Q-4 Once adware has infected a substancial number of computer systems, it generates revenue either by displaying ads or using 'pay perclick' mechanism to charge its clients against no. of clicks on ads.

Q-5 A Keylogger can either be malware or hardware. The main purpose of this malware is to record the keys pressed by a user.

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Q-6 A virus is a contagious program or code that attaches itself to another piece of software then reproduces itself when that software is running.

Q-7 Keyloggers records everything you type on your PC in order to get your login details and passwords

Q-8 Crypto locker is a form of Ransomware.

Q-9 Process of converting plain text to cipher text is Encryption.

Q-10 Keyloggers are form of Spyware.

Q-11 Firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules.

Q-12 A computer virus is a Software.

Q-13 Term for cybersecurity attack that targets multiple interconnected devices simultaneously to create a large-scale attack network?
Botnet Attack

Q-14 Knowing the password of a user for hacking is called Spoofing.

Q-15 Email bomb is an attack in which the user receives the unwanted amount of emails.

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Q-16 **Virus** is a malicious software that, on execution, runs its own code and modifies other computer program?

Q-17 Unsolicited electronic messages sent for marketing purposes are called **spam.**

Q-18 Dynamic packet filters firewall are fourth generation firewalls that work at **TCP, UDP**

Q-19 **Network Topology** refers to layout arrangement of different devices in a network

Q-20 A **worm** is a computer program that can self-replicate and propagate over the network.

Q-21 **Stuxnet** is a worm.

Q-22 **SQL injection** is a code injecting method used for attacking the database of a system/website.

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LECTURE-12
MS WORD

MS Office — Microsoft Office contains various applications such as MS Access, MS Powerpoint, MS Excel, MS Word

Application software

Introduced on 1st August 1988

Version name	Release Date/ Year
Microsoft Office for Windows	October 1990
Microsoft Office 3.0	August 30, 1992
Microsoft Office 4.x	1994
Microsoft Office 1995	August 24, 1995
Microsoft Office 1997	1997
Microsoft Office 2000	June 7, 1997
Microsoft Office XP	May 31, 2001
Microsoft Office 2003	October 21, 2003
Microsoft Office 2007	January 30, 2007
Microsoft Office 2010	June 15, 2010
Microsoft Office 2013	January 30, 2012

Libre Office Suit: Application software like MS Office

Libre Office	MS Office
writer	Word
Cale	Excel
Impress	Powerpoint
Base	Access

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MS Word — Word processing program that can be used to create, edit, format documents.

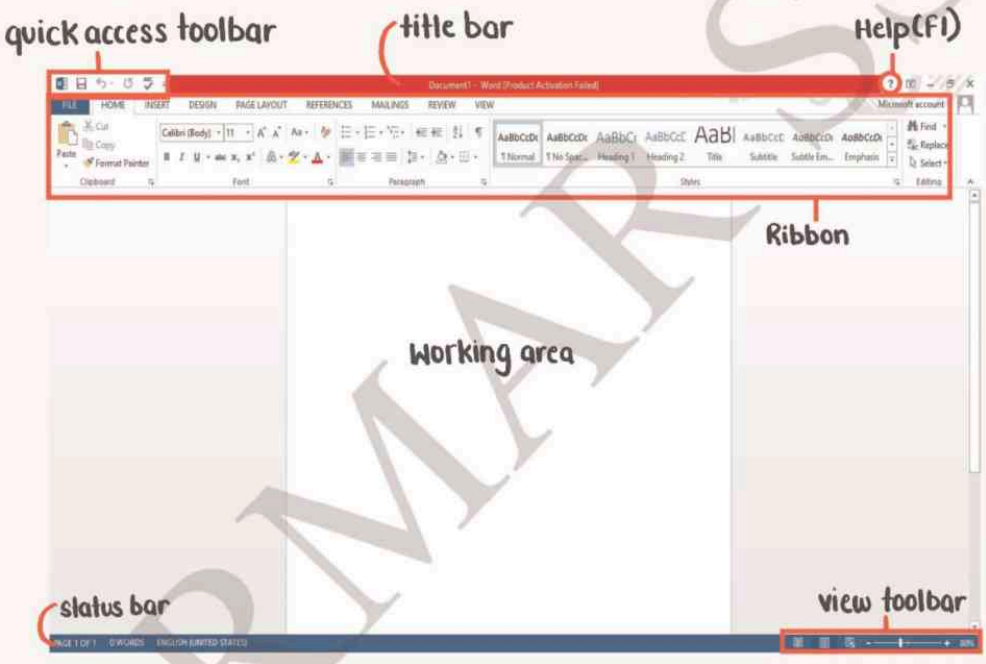
How to start — Start menu → search MS Word

⊞ + R = Run dialog box → search Winword → Enter

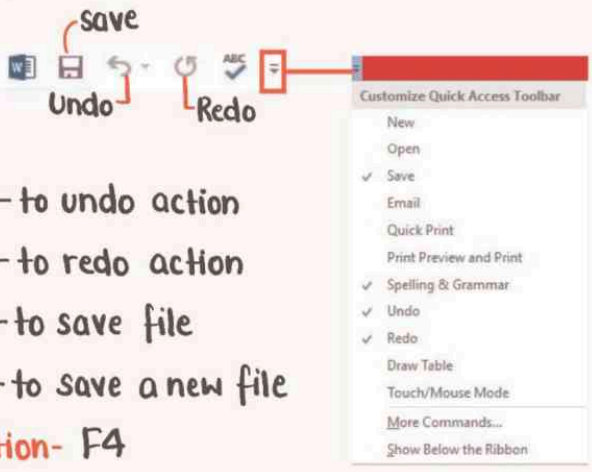
By clicking on application icon

File Name - .doc (before 2003 versions) or .docx (2007 and after versions)

By default document name – Document 1



– **Quick Access toolbar**



Undo – Ctrl+Z – to undo action

Redo – Ctrl+Y – to redo action

Save – Ctrl+S – to save file

Save As – F12 – to save a new file

To repeat an action – F4

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- View toolbar

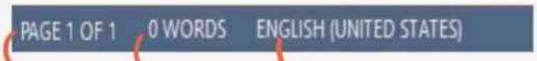
read view, print view, web view, zoom in / zoom out, ctrl + mouse scroll

Min - 10%. Max - 500%.

By default - 100%.

→ Draft view, Web layout view, Print layout, Reading layout, Outline view

- Status toolbar



page no. Words language

- Open a new document - Ctrl+O
- Create new document - Ctrl+N
- Ribbon - just below title bar
- Home Tab — After copying, file is stored in clipboard.

Cut - Ctrl+X — Shift + Delete

Copy - Ctrl+C — Ctrl + Insert

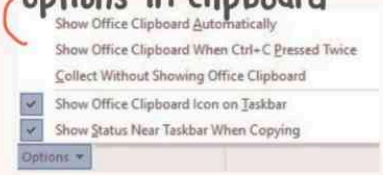
Paste - Ctrl+V — Shift + Insert

Paste Special - Ctrl + Alt+V

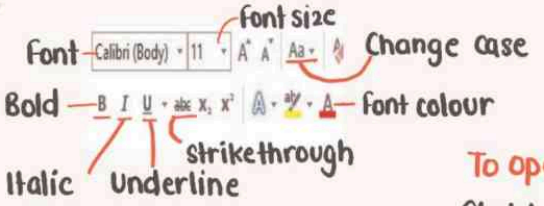
Format Printer - Copy Formatting — Ctrl + Shift +C

Paste Formatting - Ctrl + Shift +V

options in clipboard



- Font -



By default - Calibri (11)

To open Font Dialog box -

Ctrl+D — Ctrl + Shift +F

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Minimum Font size- 1
Maximum Font size- 1638
→ Shown in tab- 8-72 range

Size increase by one point- Ctrl+]
Size decrease by one point- Ctrl+[
Size increase by one value- Ctrl+> — Ctrl+Shift+>
Size decrease by one value- Ctrl+< — Ctrl+Shift+<
→ according to font size drop down menu

Word Underline- Ctrl+Shift+W

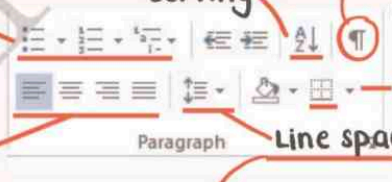
Bold- Ctrl+B Underline- Ctrl+U Superscript- Ctrl+Shift++
Italic- Ctrl+I Subscript- Ctrl+= Double underline- Ctrl+Shift+D

Case
- Sentence Case- Sentence case
- Lower case- lower case
- Uppercase- UPPER CASE
- Capitalize each case- Capitalize Each Word
- toggle case- tOGGLE cASE
- Shortcut- Shift+F3

Font Style
- Regular
- Italic
- Bold
- Bold Italic

Font Effects- Strike through, double strike through, Superscipt, Subscript, Shadow, Outline, Emboss, Engrave, Small Caps, All Caps, Hidden

- Paragraph



Left- Ctrl+L
Right- Ctrl+R
Justified- Ctrl+J
Centre- Ctrl+E

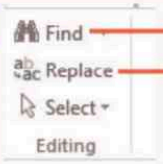
Min-1pt , Max-132 pt

New Paragraph- Enter
New line- Shift+Enter
Insert Page break- Ctrl+Enter
to indent aparagraph- Ctrl+M
Select All- Ctrl+A — Ctrl+5 (num Key)
Increase indentation- Ctrl+M

PARMAR SSC

Decrease Indentation- Ctrl+ Shift+M

- Editing



Ctrl+F – to open navigation pane

Ctrl+H

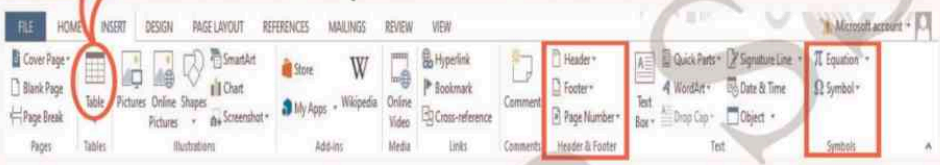
Go to - CtrltG

to open Find & Replace dialog box- F5

- Insert tab

Min column- 1

Max column- 63, Max Row- no limit



Quick tables-

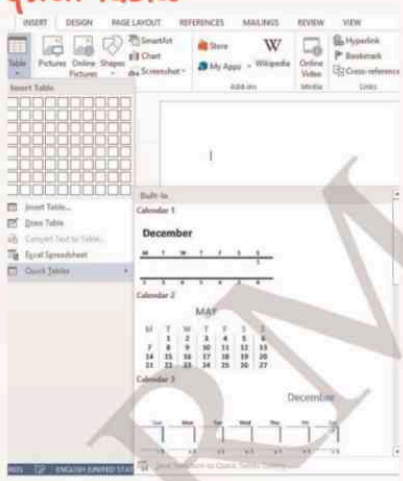
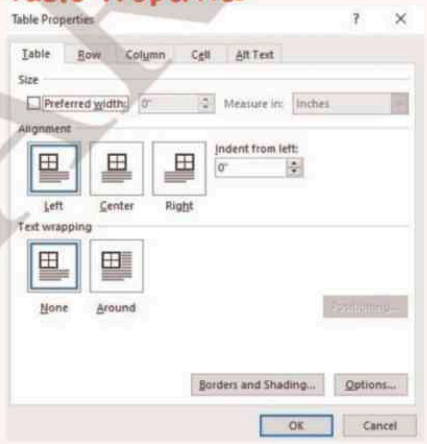
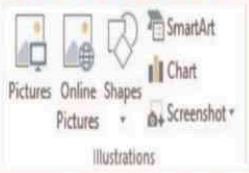


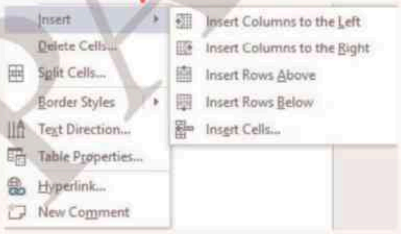
Table Properties -



Illustrations-



Insert Options-



Max width – 55.88 cm

Max Height - 55.88 cm

Hyperlink- Ctrl+k

Insert Date- Shift+Alt+D

Insert Time- Shift+ Alt+T

Table layout –

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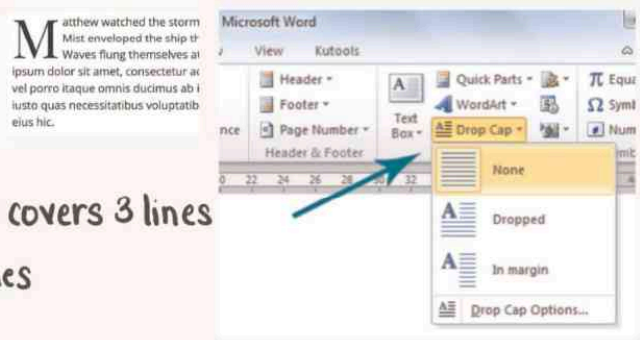
Drop Cap-



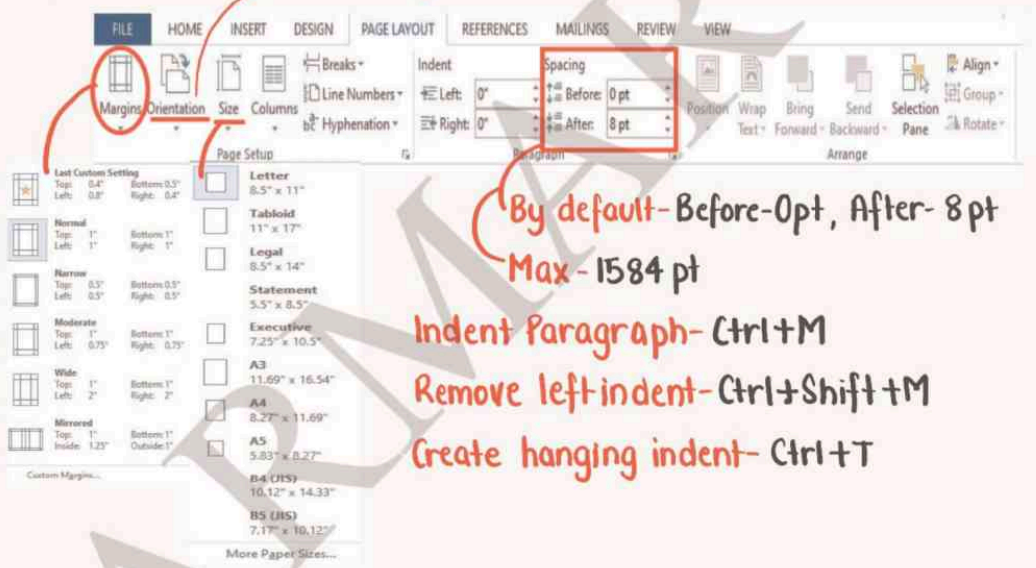
By defaut- covers 3 lines

Max- 10 lines

Design-

Page layout-

Landscape- Portrait-



By default- Before-0pt, After- 8 pt

Max - 1584 pt

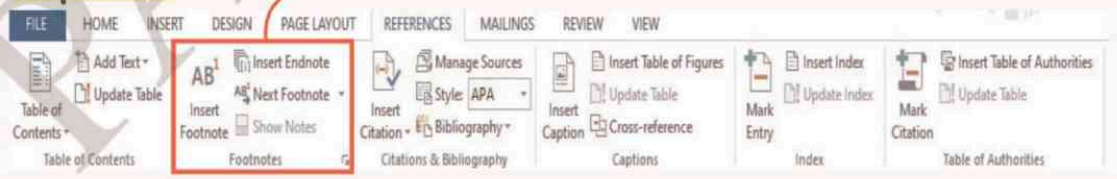
Indent Paragraph- Ctrl+M

Remove left indent- Ctrl+Shift+M

Create hanging indent- Ctrl+T

Reference-

Footnote- Alt + Ctrl+D



Mailing-

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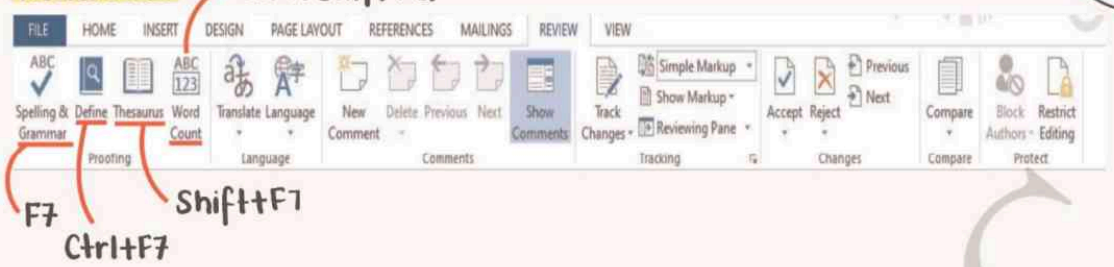
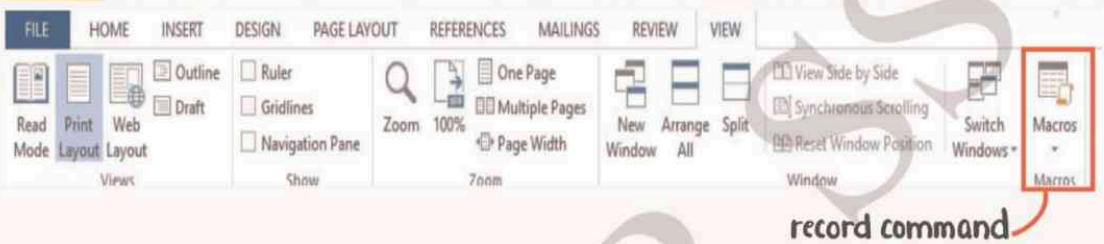
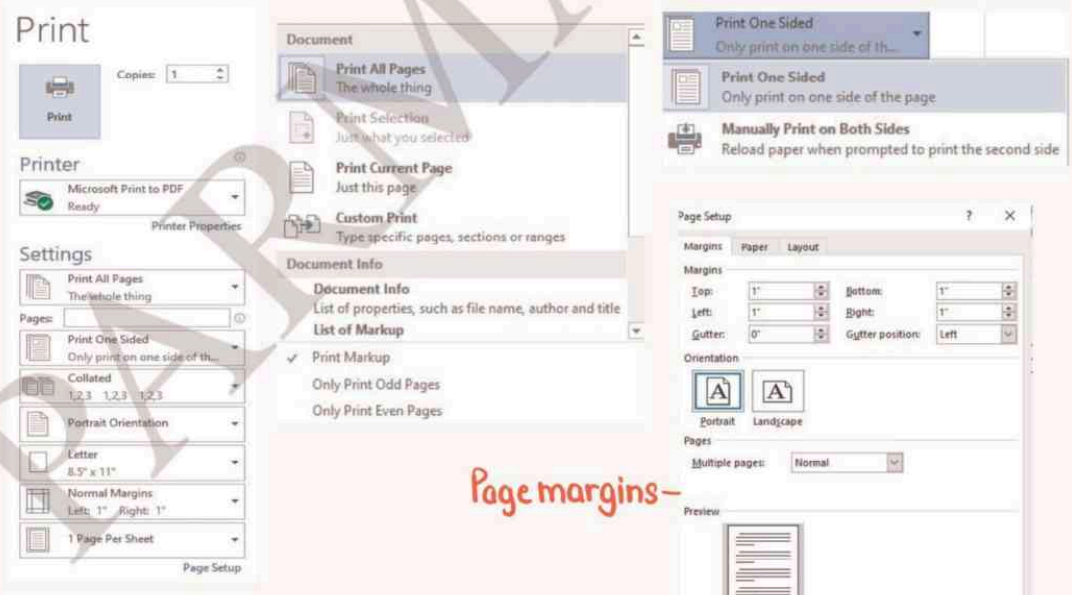
- **Review Tab-** ctrl+shift+G



- **View-**



- Close a document- Ctrl+W = Alt+F4
- Print a document- Ctrl+P
- Print Preview- Ctrl+F2 = Ctrl+Shift+F12 = Alt+Ctrl+I



Page margins-

- **Delete Combinations :-**
  - Selected text- Backspace / Delete
  - Characters before the insertion point- Backspace

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- Characters after insertion point- Delete
- A word before the insertion point- Ctrl+ Backspace
- A word after the insertion point- Ctrl+ Delete

- Moving in to the text-
  - To the end of the line - End key
  - To the beginning of a line - Home Key
  - To end of the document - Ctrl+ End
  - To beginning of the document - Ctrl+ Home
  - To the top of next page - Ctrl+ Page down
  - To the top of the previous page - Ctrl+ Page up

- Selection within a document-
  - A word - Double click on word
  - To the beginning of the line - Shift + Home key
  - To the end of the line - Shift + End key
  - To the end of a paragraph - Ctrl + Shift + down arrow ↓
  - To the beginning of a paragraph - Ctrl+Shift+ Up arrow ↑

- Different line colour under words in MS Word-

Red- Misspelt word | Spelling error
Blue- Contextual spelling error
Green- Grammatical error

Gutter Margin
used for book binding

Copy formatting- Ctrl + Shift + C
Paste formatting - Ctrl+ Shift + V
Remove Formatting- Ctrl+ space bar

Insert Page break- Ctrl + Enter
Insert Column break- Ctrl+ Shift+ Enter

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LECTURE13
MS-EXCEL

MS Excel
- spreadsheet program used to organize, analyze data
- introduced by Microsoft
- Application software
- Extension- .xls (before 2007 version). .xlsx (in and after 2007 version) — uses less memory storage

Calc- Spreadsheet software in Libre office

- Max. characters used in file name - 218
- How to open MS Excel ?
  - By using Run Command (⊞ + R) - search excel - Enter
  - Search 'MS Excel' in start menu - Enter
  - By clicking on excel application icon

- Executable File for excel- excel.exe
- Executable File for word- winword.exe
- Executable File for power point- powerpnt.exe

- Ctrl + N - To open a new Workbook
- Ctrl + O - To open an existing Workbook
- Ctrl + F12 - To open 'open dialog box'
- Save - Ctrl + S
- Save as- F12
- Ctrl + F6 - Switch between Workbooks
- Book1 — By default file name

Excel- Most famous spreadsheet software

Electronic Spreadsheet- Software that accepts data in tabular form. Eg :- Excel, Corel Quattro Pro, Snowball, Lotus 1-2-3, Apple Numbers, Visicalc

first spreadsheet software

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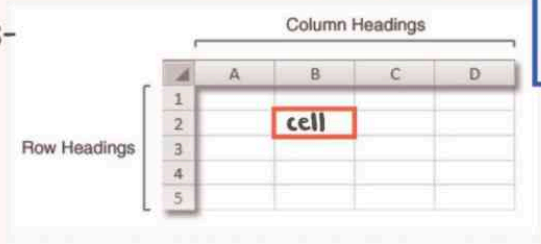
- **Workbook**- Collection of many worksheets
- **Cell**-Intersection of horizontal and vertical lines
  - horizontal → rows
  - vertical → columns
  - Group of cells- **Range**

Address of Cell- Column-Row
Eg- A5



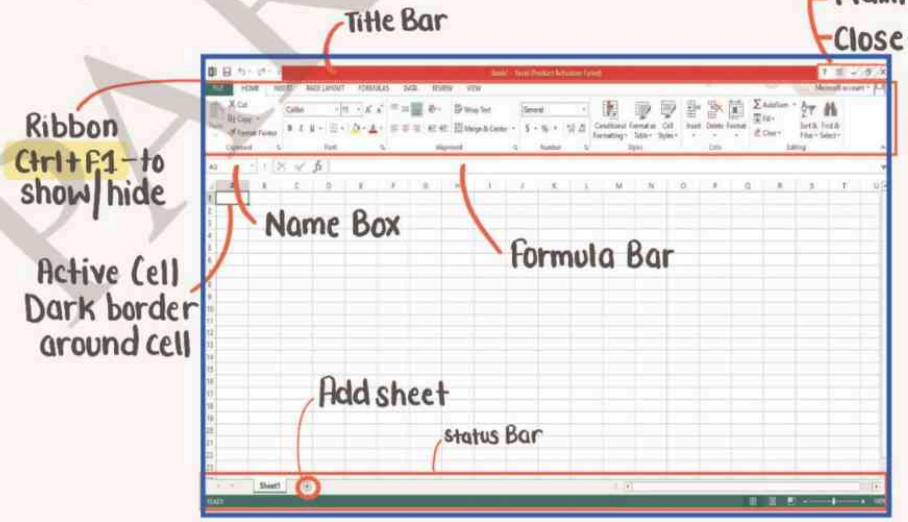
Worksheet- Sheet made up of rows and columns.
- Always stored in workbook
- By default, there is 1 worksheet in 2013, 2016 version
- In 2003, 2007, 2010 version, 3 worksheet by default

Rows- Horizontal block of cells
- No. of Rows in a sheet (2007 version & after)- 1,048,576
- No. of Rows in a sheet (2003)- 65536

Column- Vertical block of cells
- No. of columns (2007 version & after)-16384 (last column-XFD)
- No. of columns (2003)-256 (last column-IV)

No. of Max character in a cell- 32767

- Minimize- Ctrl+F9
- Maximize- Ctrl+F10
- Close- Ctrl+W / Alt+F4



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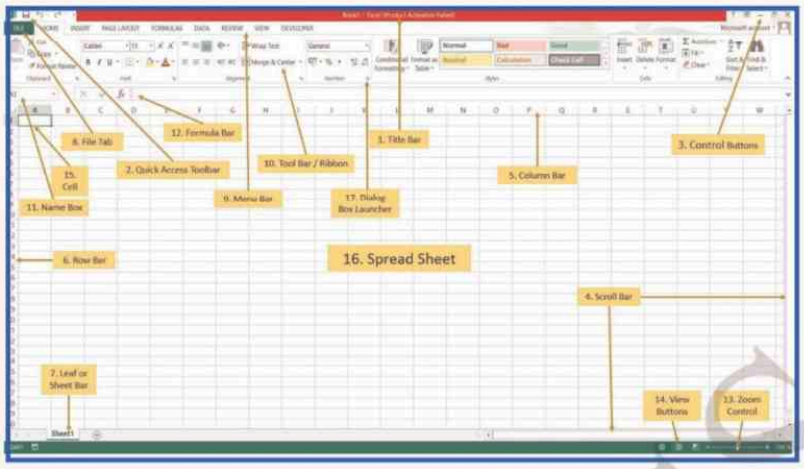


Undo limit- Upto 100 actions

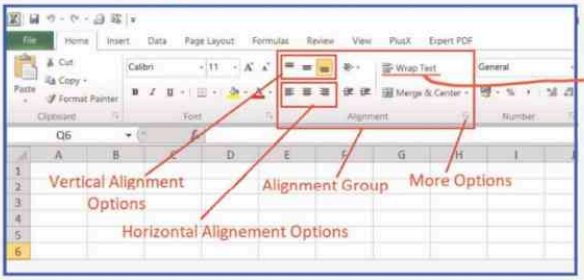
- How to add sheets in excel :-
  - Press ⊕ on sheet tab
  - Right click on sheet tab – select 'insert sheet' – Enter
  - Shortcut- Shift + F11 | Alt + Shift + F1
  - Home tab- Cell group – Insert Sheet- Enter

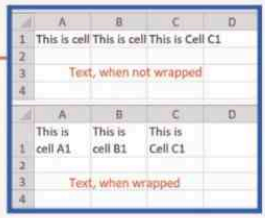
- Home tab-

Ctrl+2- Bold
Ctrl+1 - Format Cell Menu
Ctrl+3 - Italic
Ctrl+4 - Underline
Ctrl+5 – Strikethrough

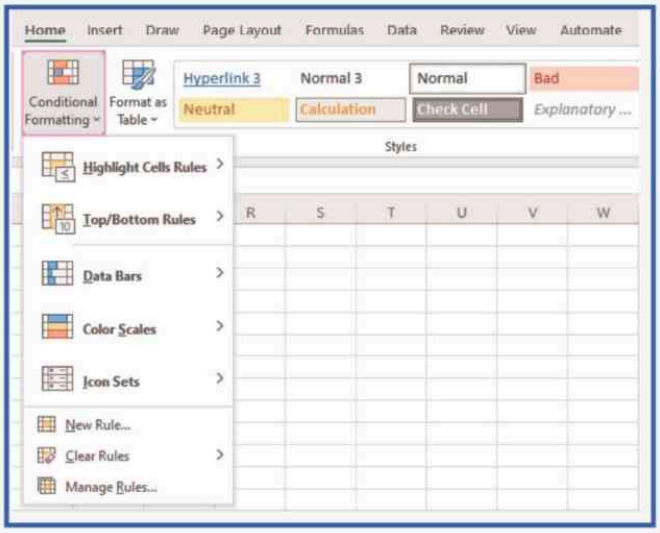
Only in Excel (Active Cell)

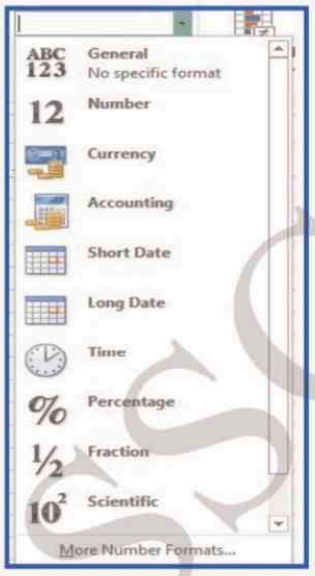
-Allignments
- Top
- Left
- Bottom
- Centre
- Middle
- Right

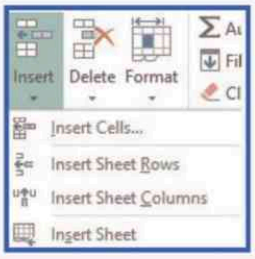


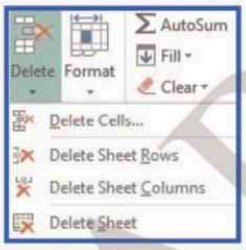


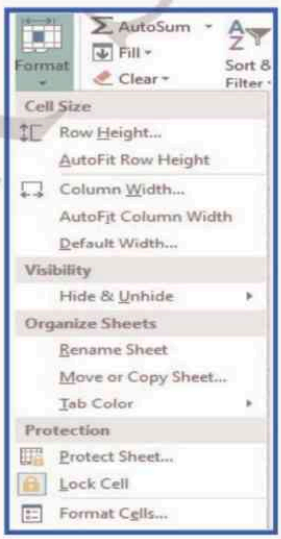
PARMAR SSC











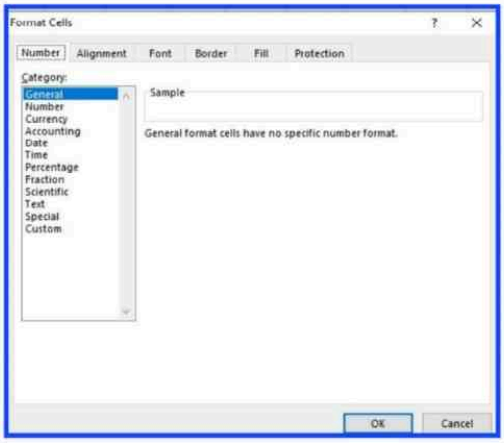
Maximum Height - 409 point
By default Height - 15 point
Maximum Width - 255 point
By default Width - 8.43 points

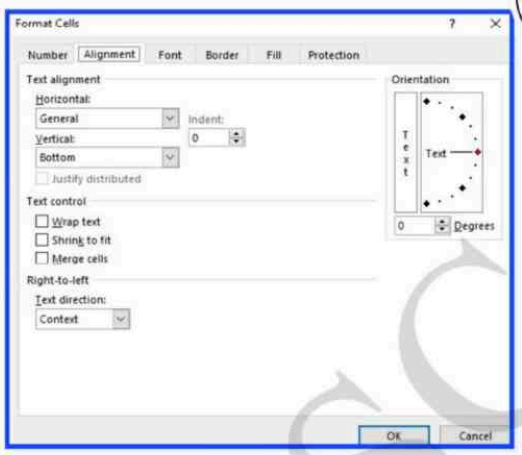
- Hide/Unhide Row - Ctrl+9 / Ctrl+Shift+9

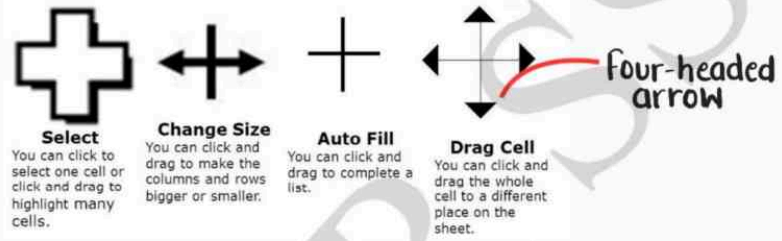
- How to rename sheet :
  - Max. character in renaming - 31
  - Double click sheet tab – select rename
  - Home tab - cell group - format option - select rename
  - Right click on sheet tab – select rename option

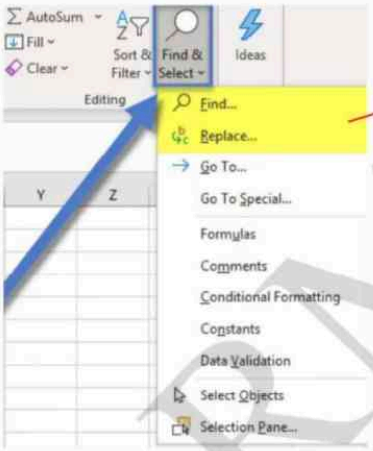
- Autosum - Alt + =
- Ctrl+1 - Format Cell

PARMAR SSC







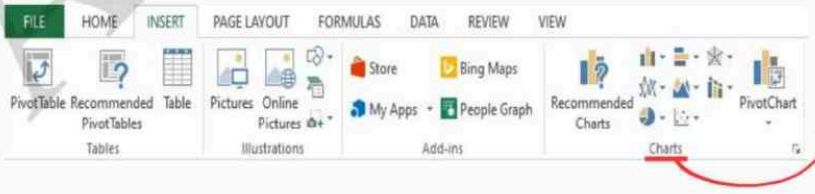


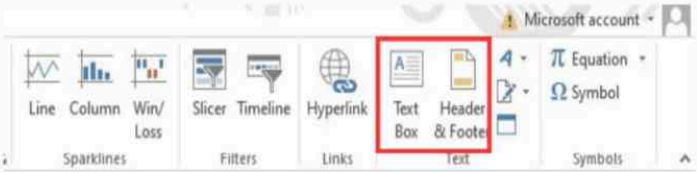
Find and Replace- Shift + F5 | Ctrl+F | Ctrl+H

Go to - F5 | Ctrl+G

→ to go on specific cell by address

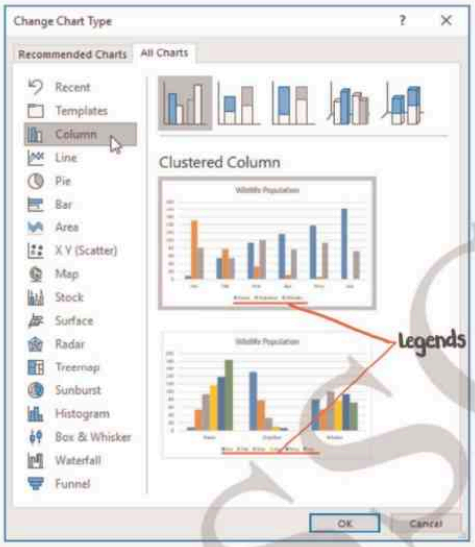
- Insert tab-

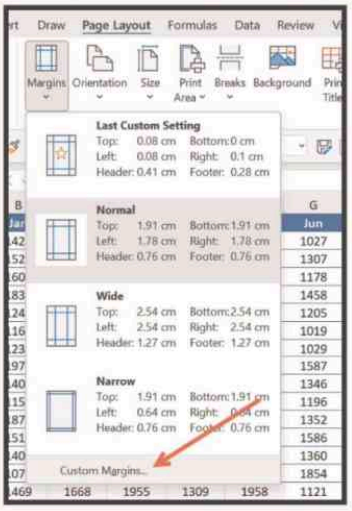


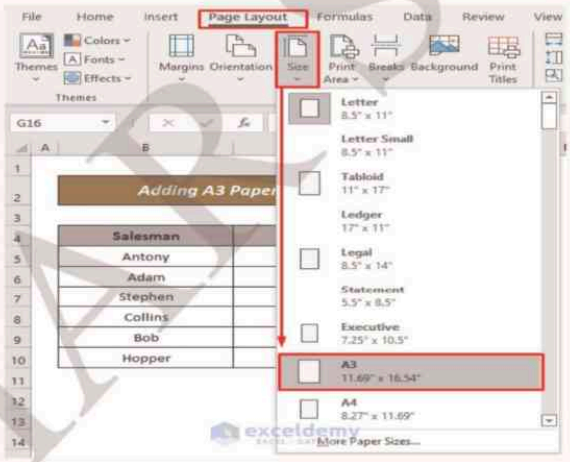


PARMAR SSC

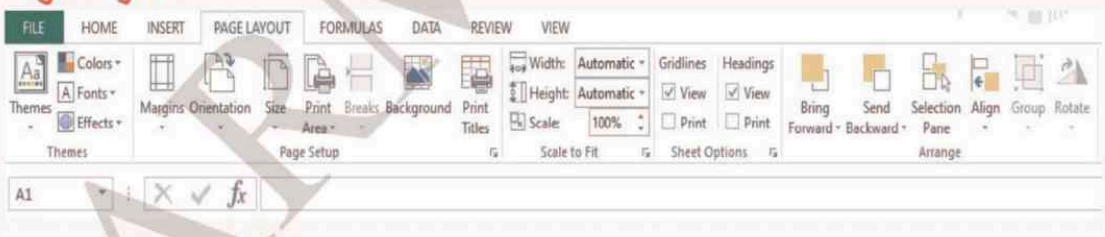
- Legend- charted data showing the colours or shapes for each series.
- Margin is normal by default
- Defaut size is letter



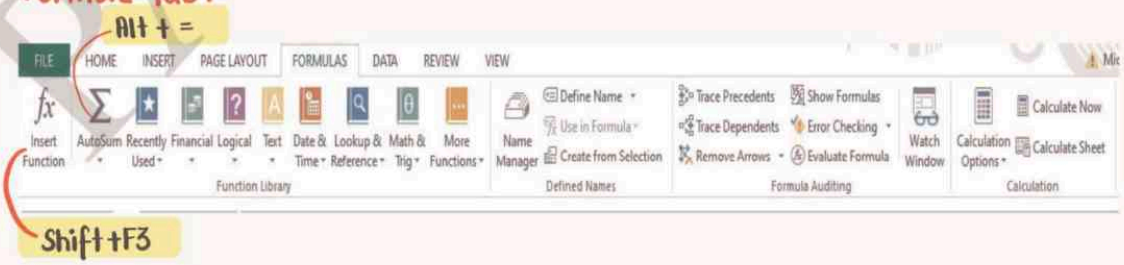




- Page Layout :

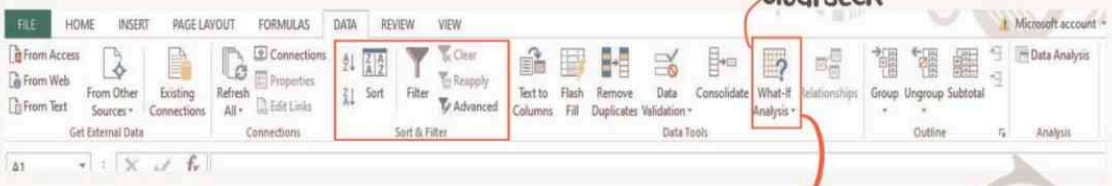


- Formula tab :



PARMAR SSC

- Data tab

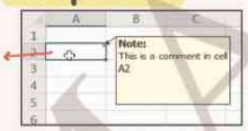


Process of changing the values incells to see how those changes affect the outcome of formulas on the worksheet.

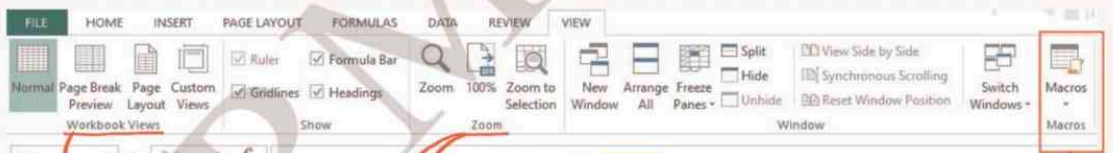
- Review tab:-

Alt + Click on word

Red corner - cell is embedded with comment



- View Tab-



By default - Normal

By default - 100%
Minimum - 10%
Maximum - 400%
Ctrl + Mouse scroll wheel

Alt + F8 / Ctrl + F11

- Moving in the worksheet:-

- Right Cell = Right arrow Key | Tab key
- Left Cell = Left arrow key | Shift + Tab Key
- Above the cell = Up arrow key | Shift + Enter
- Below the cell = down arrow key | Enter

PARMAR SSC

- To jump to first cell of sheet (A1) = Ctrl + Home Key
- To jump to first cell of row = Home key
- One sheet to another = Ctrl+ Page up / Ctrl+Page down

- Selection in Worksheet:-
  - Entire Row = Shift+ Space bar
  - Entire Column = Ctrl + Space bar
  - Entire worksheet = Ctrl+ Shift +Space bar

- F1 = Help
- F2 = To edit text of a cell
- Date = Ctrl+ ;
- Time = Ctrl+ : | Ctrl+ Shift +;
- Ctrl+k = Hyperlink
- Alt + Enter = Page break
- Shift + F3 = Formula Window

- Default Positions of-

  Number = Right Align

  Text = Left Align

  Date = Right Align

  Time = Right Align

  Special Character = Left Align

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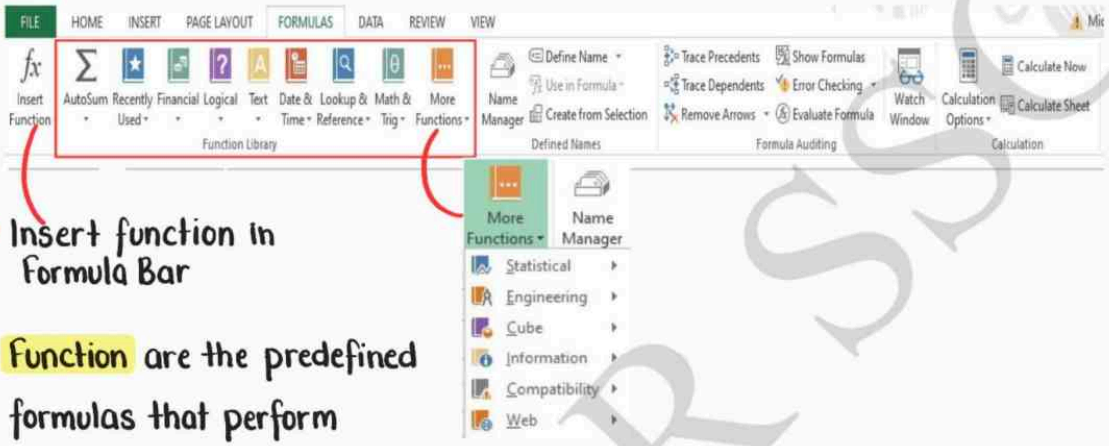
LECTURE-14
MS EXCEL FUNCTIONS

- All Formulas in Formulas Tab – Function Library



- Insert function in Formula Bar

- **Function** are the predefined formulas that perform calculations on specific values.
- All the functions are given in **function library** group of the Formula Tab.
- To insert a function – **Shift + F3**
- Function in Excel are **case sensitive.**
- If we write a formula in small letter it automatically takes **Capital** Letters
- A formula always starts with **= (equal to)**

- **Round Function** – Rounds off numbers to specified no of digits.
  Formula: Round (number, significant number)
  Eg: Round (3.27, 1) = 3.3 — no of digit post decimal
  Round (255.4565, 2) = 255.46
  Round (31.5, -1) = 30
  — round off to the left digit → upto nearest multiple of 10

- **Roundup Function** – Rounds off a number up away from 0.

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Eg: Roundup (3.27, 1) = 3.3
Roundup (31.5, -1) = 40

- **Rounddown function**- This function rounds off a number down towards 0.
  Eg: Rounddown (3.27, 1) = 3.27
  Rounddown (31.5, -1) = 30

- **Absolute Function**- Gives the absolute value of a number
  Eg: ABS (-5) = 5 ABS (5) = 5

- **SQRT Function**- Gives positive square root of a number
  Eg: SQRT (16) = 4 SQRT (-16) = Error

- **TRUNC Function**- It truncates a number to an integer value by removing the fractional part of the number.
  Eg: TRUNC (8.925) = 8 TRUNC (-8.925) = -8
  TRUNC (8.925, 2) = 8.92

- **MAX Function**- This function returns the largest value in a set of values stored in the cell.
  Eg- MAX (56, 89, 63, 78) = 89

- **MIN Function**- It returns the smallest values in a set of values stored in the cell.
  Eg- MIN (56, 89, 63, 78) = 56

- **Average function**- It returns the average of the arguments which are passed in the function. Eg: AVERAGE (0, 8, 2, 6) = 4

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- **AVERAGEA Function-** Returns the average of its arguments, including numbers, text and logical values.

  Eg: AVERAGEA (2,2<1,6)= 2.666 (2<1 False)

  AVERAGEA (2,3>1,6)= 3 (3>1 True)

- **MOD Function-** Returns the remainder after number is divided by divisor. The result has the same sign as divisor.

  Eg: MOD(3,2)= 1 MOD(3,-2)= -1

  MOD(-3,2)= 1 MOD (-3,-2)= -1

- **Power Function:** Returns the result of a number raised to a power.

  Eg. Power (3,2)= 3^2 = 9 POWER (3^3)= Error

- **COUNT Function-** This function counts the no of cells that contain numbers and the numbers within the list of arguments.

	A	B	C
1	2	ab	
2	3	1	
3			

COUNT (A1:B2)
=3

- **COUNTA Function-** It counts all the numbers, text, symbols, characters etc, but not count empty cells.

	A	B	C
1	2	ab	
2	3	1	
3			

COUNTA (A1:C3)
= 4

- **TODAY Function-** It returns the current date of the system.

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= TODAY ( ) → Enter

- **NOW function** – It returns the current date and time of the system.
  Eg. NOW ( )

- **Concatenate Function :** It joins two or more text strings into one text string.
  Eg. CONCATENATE ("Parmar", "Academy") = Parmar Academy

	A	B	C	D
1	Aman	Shakya		
2				
3				

= Concatenate (A1, B1)
⇒ AmanShakya

- **Ceiling Function** – Returns number rounded up, away from zero, to the nearest multiple of significance.
  - If either argument is non-numeric, CEILING returns the #Value!
  - If no. is +ve and significance is -ve, CEILING returns #NUM! error
  - If no. is exact multiple of significance, no rounding occurs.
  - If no. is -ve and significance is -ve, the value is rounded down, away from zero.
  - If no. is -ve, significance is +ve, the value is rounded up towards zero.

  Eg - CEILING (2.5, 2) = 4
  CEILING (4, 2) = 4
  CEILING (-2.5, 2) = -2
  CEILING (-2.5, -2) = -4
  CEILING (4, -2) = #NUM!

- **Floor Function** – Rounds no. down towards 0, to the nearest multiple

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of significance.

- If either argument is non-numeric, FLOOR returns the #Value!
- If no. is +ve and significance is -ve, FLOOR returns #NUM! error
- If no. is exact multiple of significance, no rounding occurs.
- If no. is +ve, a value is rounded down and adjusted toward 0.
- If no. is -ve, value is rounded down and adjusted away from 0.

Eg- FLOOR (3.7,2)= 2 FLOOR (2.5,-2) = #NUM!

FLOOR(-2.5,-2)= -2 FLOOR (4,5)= 0

- ADDRESS Function- Used to obtain the address of a cell in a works-sheet. Eg- ADDRESS (2,3) returns $C $2

Row Column

- AND Function- to determine if all conditions in a test are TRUE.

Eg. =AND (5>1, 60<100) ⇒ True

Both the conditions should be true to get outcome as True.

- OR Function= If either of the two conditions is true, the outcome is true. Eg- =OR (2>1, 3<1) ⇒ True

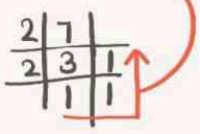
- NOT Function- Reverses the output of an expression.

Eg =NOT (2<1) ⇒ True

False (reverse)

- BASE Function- Converts a number into a text representation with the given radix (base). Eg = BASE (7,2) ⇒ 111

Base



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- **CLEAN Function-** Removes all non-printable characters from text.
  Eg =CLEAN( )

- **COLUMN Function-** returns the column no. of the given cell reference.
  Eg- COLUMN (D10) returns 4- as column D is the fourth column

- **ROW Function-** Returns the row no. of the given cell reference.

- **CONVERT Function-** Converts a number from one measurement system to another.
  Eg- CONVERT (number, from_unit, to_unit)
  =CONVERT (68,"F","C") – Fahrenheit to Celsius = 20

- **DATEDIF Function-** Calculates the no. of days, months, or years b|w two dates. This function is useful in formulas where you need to calculate an age. Eg- DATEDIF (start_date, end_date, unit)
  =DATEDIF(1/1/2001 - 1/1/2003,"Y") ⇒ 2 years

- **EVEN Function-** Rounds a number up to the nearest even integer.
  Eg- EVEN (number) ⇒ EVEN (5) = 6 EVEN (-1) = -2
  EVEN (1.5) = 2 EVEN (1.1) = 2

- **ODD Function-** Rounds a number up to the nearest odd integer.
  Eg- ODD (number) ⇒ =ODD (1.5) ⇒ 3 =ODD (2) ⇒ 3
  =ODD (3) ⇒ 3 =ODD (-1) ⇒ -1

- **FACT Function-** Returns the factorial of a number.
  Eg- FACT (number) → =FACT (5) ⇒ 5X4X3X2X1 = 120

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=FACT(1.9) ⇒ 1 (factorial of constant no. in case of decimal)

=FACT(-1) ⇒ #NUM

- **FACTDOUBLE Function** – Returns the double factorial of a number.

  Eg- FACTDOUBLE(number) ⇒ FACTDOUBLE(6) ⇒ 6X4X2 = 48

  FACTDOUBLE(7) ⇒ 7X5X3X1 = 105

- **GCD Function**- Returns the greatest common divisor of two or more integers. Eg ⇒ GCD(number1, number2)

  =GCD(24,36) ⇒ 12 =GCD(4,0) ⇒ 4 =GCD(8,-4) ⇒ #NUM!

- **LCM Function**- Returns the least Common Multiple. Eg ⇒ LCM(no.1,no.,2)

  =LCM(24,36) = 72 =LCM(4,0) ⇒ 0 =LCM(8,-4) ⇒ #NUM!

- **LOWER Function**- Converts all uppercase letters in a text string to lowercase. Eg ⇒ LOWER(text) =LOWER("AMAN") ⇒ aman

- **UPPER Function**- Converts all LOWERCASE letters in a text string to UPPERCASE. Eg = =UPPER("Aman") ⇒ AMAN

- **PI Function**- Returns the number 3.141592653589793, constant pi value, accurate to 15 digits.

  Eg = PI()/2 ⇒ 1.570796327

- **PRODUCT Function**- The PRODUCT function multiplies all the numbers given as arguments and returns the product.

  Eg = PRODUCT(2,3) ⇒ 6

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- **PROPER Function** - Capitalizes the first letter in a text string and any other letters in text that follow any character other than a letter. Converts all other letters to lowercase letters.

  Eg (=PROPER ("MY nAME IS khan)
  ⇒ My Name Is Khan

- **QUOTIENT Function** - Returns the integer portion of a division

  Eg = QUOTIENT (numerator, denominator)
  = QUOTIENT (10, 3) = 3

- **SIGN Function** - Determines the sign of a number.

  Eg ⇒ SIGN (number) ⇒ = SIGN (10) ⇒ 1 = SIGN (-5*2) = -1
  = SIGN (4-4) ⇒ 0
  = SIGN (-0.00001) ⇒ -1

- **SUMSQ Function** - Returns the sum of the squares of the argument

  Eg = SUMSQ (3,4) = 3^2+4^2 = 25

- **TRIM Function** - Removes all spaces from text except for single spaces b/w words. Eg ⇒ TRIM (text) = TRIM ("Welcome_to_Parmar_Home")
  ⇒ Welcome_to_Parmar_Home

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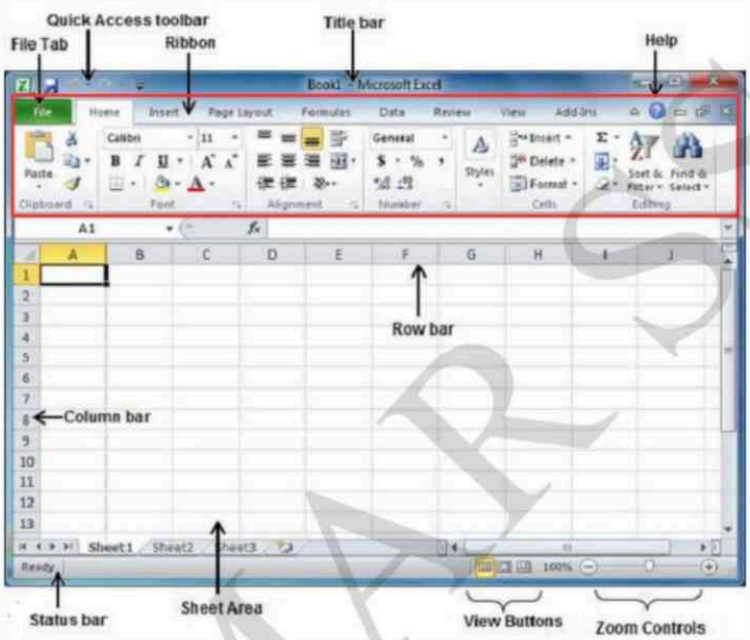
LECTURE-16
MS EXCEL PRACTICE QUESTIONS

Q-1 In MS-Excel 365 which of the following appears across the top of the screen and below the title bar and contains all the commands, formulas and features needed to create data-intense spreadsheets?

A. Ribbon — show|hide- Ctrl+f1
B. Status bar
C. Ruler
D. Scroll bars



Q-2 Which of the following is correct option in MS-Excel 365, if a value in a cell of column A and row 10 is to be referred in a function or formula?

A. A-10
B. 10A
C. A10 — Column-A, Row-10
D. A:10

Q-3 Which of the following is Math and trigonometric functions available in MS-Excel 365?

A. Text function — group
B. ABS function — Absolute Function - Eg: (-3)=3
C. Logical function — group
D. Financial function — group

Q-4 Each cell in the worksheet of MS-Excel 365 is identified by a cell _____

A. color
B. size
C. rounding
D. reference

Q-5 Which of the following shortcut key is used to quickly create a new, blank workbook in MS-Excel 2010?

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A. Ctrl + N
B. Alt + Shift + W
C. Alt + Shift + N
D. Ctrl + W — to close a workbook

Q-6 Consider the following statement about MATCH() function of MS-Excel 2010:

P. It searches for a specified item in a range of cells, and then returns the relative position of that item in the range.

Q. The MATCH function syntax is MATCH(lookup_value, lookup_array, [match_type])

R. All the arguments in a MATCH() function are required.

Which of the following statement(s) is/are true

A. Only Q
B. All P, Q, R
C. Only P and R
D. Only P and Q

Product	Count	
Bananas	25	
Oranges	38	
Apples	40	
Pears	41	
Formula	**Description**	**Result**
=MATCH(39,B2:B5,1)	Because there is not an exact match, the position of the next lowest value (38) in the range B2:B5 is returned.	2
=MATCH(41,B2:B5,0)	The position of the value 41 in the range B2:B5.	4
=MATCH(40,B2:B5,-1)	Returns an error because the values in the range B2:B5 are not in descending order.	#N/A

*Syntax: MATCH(lookup_value, lookup_array, [match_type])
function name — Range of cells

The MATCH function syntax has the following arguments:

lookup_value (Required) The value that you want to match in lookup_array.

- The lookup_value argument can be a value (number, text, or logical value) or a cell reference to a number, text, or logical value.

- lookup_array (Required) The range of cells being searched.

match_type (Optional) The number -1, 0, or 1. The match_type argument specifies how Excel matches

- lookup_value with values in lookup_array. The default value for this argument is 1.

<u>if match type is 1 :-</u>

MATCH finds the largest value that is less than or equal to lookup_value. The values in the lookup_array argument must be placed in ascending order, for example: ...-2, -1, 0, 1, 2, ..., A-Z, FALSE, TRUE

<u>if match type is 0</u> :-

MATCH finds the first value that is exactly equal to lookup_value. The values in the lookup_array argument can be in any order.

<u>if match type is -1 :-</u>

MATCH finds the smallest value that is greater than or equal to lookup_value. The values in the lookup_array argument must be placed in descending order, for example: TRUE, FALSE, Z-A, ...2, 1, 0, -1, -2, ..., and so on

Q-7 Which the following shortcut key is used to select all cells of the current row in MS-Excel 2010 worksheet?

Shift + Space - to select entire row

A. Shift + Page down
B. Ctrl + Spacebar — to select entire column

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C. Shift + Page up
D. Shift + Spacebar

Q-8 What will the function given below return in MS-Excel 2010?
=MATCH(12,{10,13,30,40,60},1)
A. 0
B. 1
C. #N/A
D. 2

*It finds Exact or Closest position of a value
If you add 1 your data is sorted in ascending order
0 for exact match

-1 for your data must be sorted in descending order

=MATCH(12,{10,13,30,40,60},1) – 1
=MATCH(12,{10,13,30,40,60},0) – #NA
=MATCH(12,{10,13,30,40,60},-1) – #NA

Q-9 The default width of a column in MS-Excel is:
(a) 7 characters
(b) 8 characters — exact - 8.43 Characters
(c) 6 characters
(d) 9 characters

Q-10 In Microsoft Excel, which chart type is best suited for comparing proportions or percentages of a whole?
(a) Pie Chart — F11 - to insert Chart
(b) Line Chart
(c) Bar Chart
(d) Scatter Chart

Q-11 Which of the following steps is used to format a cell in an MS Excel Spreadsheet?
(a) View >Select cell >Format
(b) Select cell > Right Click >Format Cell — Ctrl+1
(c) Menu >Select cell >Format
(d) Select Cell > View >Format

Home tab → Cell group → Format

Q-12 Which MS Excel function can be used to sum up the numbers entered in a group of cells?
(a) SUM
(b) AVERAGE
(c) MAX
(d) COUNT

Q-13 Which Excel feature allows you to simultaneously edit the same cell or range of cells with multiple users in real-time?
(a) co-authoring
(b) Data Validation
(c) Conditional Formatting
(d) Track Changes

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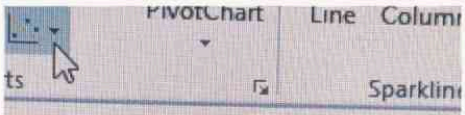
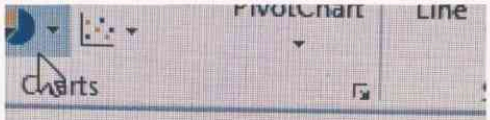
•Types of charts and their functions :-



Insert Scatter (X, Y) or Bubble Chart

Use this chart type to show the relationship between sets of values.

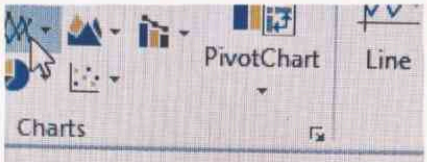
Click the arrow to see the different types of scatter and bubble charts available and pause the pointer on the icons to see a preview in your document.



Insert Pie or Doughnut Chart

Use this chart type to show proportions of a whole. Use it when the total of your numbers is 100%.

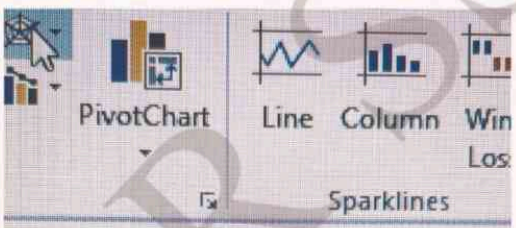
Click the arrow to see the different types of pie and doughnut charts available and pause the pointer on the icons to see a preview in your document.



Insert Line Chart

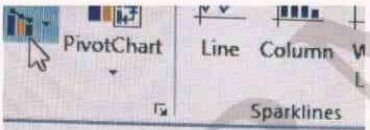
Use this chart type to show trends over time (years, months, and days) or categories.

Click the arrow to see the different types of line charts available and pause the pointer on the icons to see a preview in your document.



Insert Stock, Surface or Radar Chart

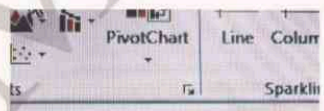
Click the arrow to see the different types of stock, surface, or radar charts available and pause the pointer on the icons to see a preview in your document.



Insert Combo Chart

Use this chart type to highlight different types of information. Use it when the range of values in the chart varies widely or you have mixed types of data.

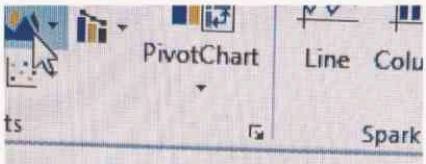
Click the arrow to see pre-set combo charts and pause over the icons to see a preview in your document. Click Create Custom Combo Chart to choose different chart types to combine.



Insert Bar Chart

Use this chart type to visually compare values across a few categories when the chart shows duration or the category text is long.

Click the arrow to see the different types of bar charts available and pause the pointer on the icons to see a preview in your document.

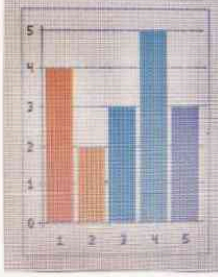


Insert Area Chart

Use this chart type to show trends over time (years, months, and days) or categories. Use it to highlight the magnitude of change over time.

Click the arrow to see the different types of area charts available and pause the pointer on the icons to see a preview in your document.

Insert Column Chart



Use this chart type to visually compare values across a few categories.

Click the arrow to see the different types of column charts available and pause the pointer on the icons to see a preview in your document.

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Q-14 Formulas in MS-Excel always start with which of the following symbols?
(a) ==
(b) !
(c) =
(d) -

Eg: =SUM(A1:B3) Autosum- Alt + =

Shift + F3 = to insert a function

Q-15 Which function is used to calculate the maximum value in a selected column in MS Excel?
(a) Max
(b) Auto max
(c) Auto high
(d) High

Q-16 What will happen when you select the cell contents of a particular row in MS-Excel and then click the Delete button?
(a) Entries in all the selected cells will be deleted
(b) First five cell entries will be deleted
(c) Only first three cells will be deleted
(d) Entire row will be deleted

Q-17 On what type of data can MS Excel functions operate?
(a) Range of cells or groups of cells
(b) External data sources only
(c) Entire worksheets only
(d) Individual cells only

Q-18 Which of the following is NOT an alignment option for text in a cell?
(a) Justified
(b) Left
(c) Center
(d) Right

Q-19 Which of the following keyboard shortcuts is used to enter a new line in the same cell in a worksheet in MS-Excel 2010?
1. Tab + Enter
2. Ctrl + Enter
3. Shift + Enter — to move upwards
4. Alt + Enter

Q-20 What is a cell in Microsoft Excel?
1. A small diagram or chart.
2. A single worksheet within a workbook.
3. A separate file used to store data.
4. The intersection of a row and a column in a worksheet

Q-21 In MS-Excel 2019, what does the SUM function do?
1. It counts the number of cells in a range.
2. It multiplies the values in a range.
3. It adds up the values in a range.
4. It finds the average of values in a range.

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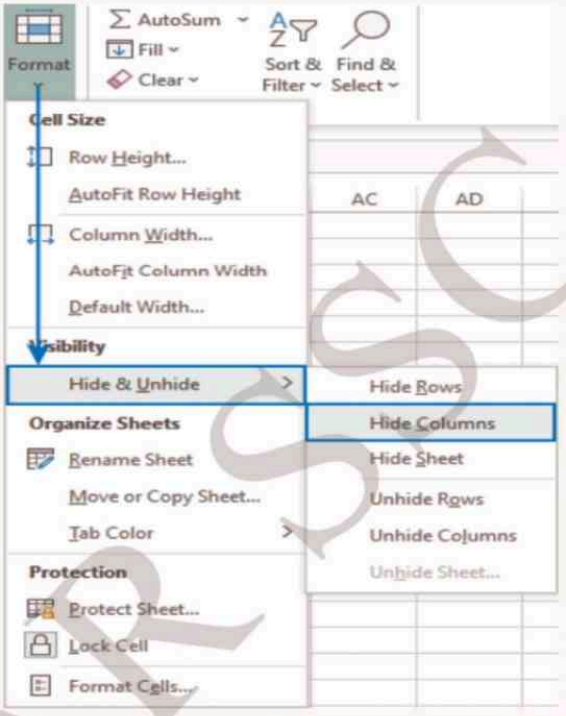
Q-22 In MS-Excel 365, the _____ between two columns is an indicator that we have hidden a column.

1. single line
2. single arrow
3. double line
4. double arrow

Hide Column- Ctrl + 0 (zero)
Hide Row- Ctrl + 9
Show Row- Ctrl + Shift + 9

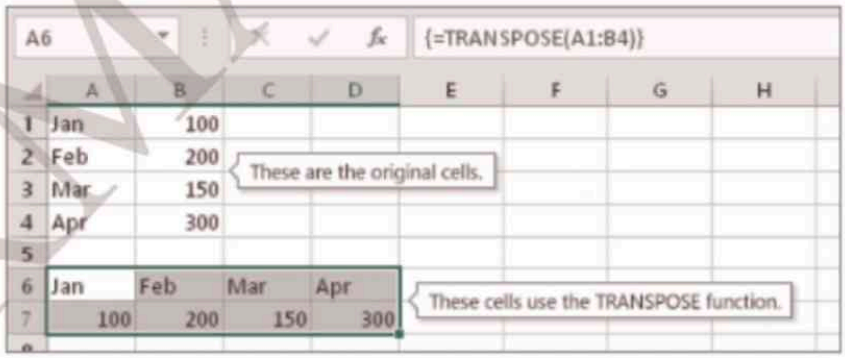


Q-23 In MS-Excel 365, you can use _____ when you want to change a cell reference within a formula without changing the formula itself.

1. TRANSPOSE
2. VLOOKUP
3. INDIRECT
4. MATCH

TRANSPOSE (array) - Converts a vertical range of cells to a horizontal range or vice versa.

VLOOKUP - to look up for something in a specific range - Returns an approximate or exact match - indicates as 1/ True or 0/ False



Q-24 The following questions are based on the following sample worksheet created in Microsoft Excel 2016. Read this worksheet carefully and accordingly select the most appropriate option for the question.
What will be the absolute address of the cell with the value 213?

a) $E$5
b) $E5$
c) E$5
d) &5&E

	A	B	C	D	E
1	100	45	B		C
2		10	K	20	
3	F	450	G		H
4	225	30		40	
5	110	35	300	E	213

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Relative
The default mode in Excel, where the cell reference changes when copied to another cell. Relative references don't have a dollar sign ($) in the row and column coordinates. For example, A1 or A1:B10 are relative references.

Absolute
Cell references with a dollar sign ($) in the row or column coordinates. For example, $A$1 or $A$1:$B$10 are absolute references. Absolute references don't change when copied or filled.

Mixed
One coordinate is fixed, and the other changes. For example, $A1 and A$1 are mixed references.

Q-25 What happens if you select cells B2 to D2 and click AutoSum?
a) This will generate an excel error.
b) Cell E2 will contain 30.
c) Cell C2 will contain 30.
d) The contents of cell C2 will be erased.

Q-26 If the MS-Excel formula '=FLOOR(B5, 16)' is applied to the sample worksheet, what will be the result?
a) 32
b) 48
c) 30
d) 34

Q-27 If the MS-Excel formula '=CEILING(B1,10)' is applied to the sample worksheet, what will be the result?
a) 50
b) 46
c) 45
d) 40

Q-28 In MS Excel, which symbol in a formula specifies fixed columns or rows?
1. !
2. &
3. *
4. $

Q-29 In MS Excel, macros can be inserted using the____ tab.
A. Developer
B. Design
C. View
D. Layout

Q-30 In MS-Excel F11 is the shortcut key for
a) opening a document
b) inserting hyperlink
c) help
d) creating a chart form the selected cell range

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Q-31 Which of the following represents the address of the current selection or active cell in MS Excel?

a) row heading
b) column heading
c) name box
d) formula bar

Q-32 Which of the following category function is not found in MS Excel?

a) financial
b) Logical
c) Scientific
d) Text

Q-33 In MS Excel 2016, what is the shortcut key launch the Open dialog box?

a) Alt + F12
b) Ctrl + F12
c) Shift + F12 — Save
d) F12 — Save As

Q-34 In Microsoft Excel 2013, a cell can contain a total number of characters.

a) 32,767
b) 16,384
c) 409
d) 255

Q-35 In MS-Excel worksheet, which of the following refers to the intersection of a column and a row?

a) Workbook
b) Cell
c) Formula Bar
d) Name box

Q-36 In Ms Excel worksheet when you select A1 cell, press shift key and then click on C5 cell, how many cells will be selected in total?

a) 10
b) 14
c) 8
d) 15

Q-37 What is the output of the following formula in MS-Excel?

a) 0
b) 0.5
c) 4
d) Error

Order of Operations

Order	Symbols	Operation	Example
1	()	Parentheses	=(5-2)*4 = 12
2	: ,	Reference operators	=SUM(A1:A5)
3	-	Negation	=-3^2 = 9
4	%	Percent	=5%*100 = 5
5	^	Exponentiation	=5^2*2 = 50
6	* /	Multiplication and Division	=7-6/2 = 4
7	+ -	Addition and Subtraction	=6/2+1 = 4
8	&	Concatenation	="score: "&5+1 = score: 6
9	> < = <>	Logical comparisons	=3^2>5+3 = TRUE

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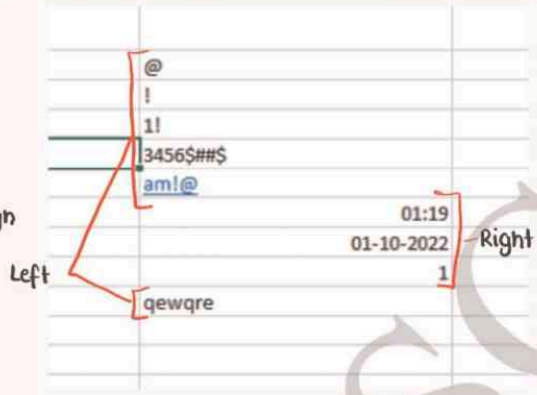
Q-38 What is the default alignment of numbers in cells in an MS-Excel worksheet?

a) Center
b) Left
c) Right
d) Justified

Default Positions :-
- number - Right Align
- text - Left Align
- date - Right Align
- time - Right Align
- Special characters - Left Align



Q-39 When you open a new workbook in MS-Excel, which of the following appears at the top of the screen?

a) vertical Scroll bar
b) horizontal Scroll bar
c) Status Bar
d) Title Bar — By default name - Book1

Q-40 What is output of the following in MS-Excel?
=FACT(0) + FACT (3) + FACT (4)

a) 31
b) 127
c) 8
d) 126

Q-41 Which of the following function used in MS-Excel to find the minimum value in selected cells ?

a) LEAST
b) LESS
c) MIN
d) LOW

Q-42 What is the output of the following formula in MS – Excel, ='16/2^3'?

a) 124
b) 2
c) 6
d) 512

Q-43 Which of the following can be seen on the top of any worksheet in MS-Excel?

a) Formula Bar
b) Horizontal Scroll Bar
c) Status Bar
d) Vertical Scroll Bar

Q-44 In an MS-Excel worksheet, which of the following keys is used to select a series of consecutive cells?

a) Tab
b) Ctrl

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c) Shift
d) Alt

Q-45 What is the output of the formula in Ms-Excel?
= CEILING(7,5)
a) 5
b) 8
c) 10
d) 7

Q-46 Which of the following appears at the very right of the worksheet in MS Excel?
a) Menu Bar
b) Vertical Scroll Bar
c) Horizontal Scroll Bar
d) Status Bar

Q-47 What is the output of the following formula in Ms Excel?
a) 120
b) 96
c) 1
d) 24

Q-48 What happens by default when you enter a value in an Excel cell and press the Enter key?
a) The cursor will move to the left cell
b) Cursor will move to the bottom cell
c) The cursor will move to the top cell
d) cursor will move to the right cell

Q-49 What will be the result of the following MS Excel formula?
a) 3
b) 0
c) -0.5
d) 1

Q-50 Which of the following components of a worksheet displays the address of the selected cell?
a) Title bar
b) Formula bar
c) Name box
d) Status bar

Q-51 What is the output of the following in MS Excel?
=FLOOR (3,3) + CEILING (4,4)
a) 6
b) 4
c) 5
d) 7

Q-52 In an MS Excel worksheet, when you select a range of cells B3:G9, starting with B3, what will be

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displayed in the name box?

a) B3
b) G9
c) G3
d) A1

Q-53 In MS Excel, which of the following is used to combine and center the contents of a selected cell into a new larger cell?

a) Strikethrough
b) Wrap text
c) Merge and Center
d) Justify

Q-54 In MS Excel what is the output of the following formula.

a) 65
b) 64
c) 82
d) 32

Q-55 Which of the following can be used to create a new line inside a cell in an MS Excel worksheet?

a) Enter
b) Ctrl + Enter
c) Down Arrow
d) Alt + Enter

Q-56 What is the address of the cell at the point of intersection of the 7th row and the 10th column in an MS Excel worksheet?

a) $J7$
b) J7
c) 7J
d) G10

Q-57 In MS Excel, the zoom option appears in:

a) Formula Bar
b) Title Bar
c) Status Bar
d) Horizontal Scroll Bar

Q-58 Which of the following function of MS Excel 2007 removes all non-printable characters from any text at all?

a) CODE
b) CHAR
c) CLEAN
d) REPLACE

Q-59 With reference to MS Excel, which of the following statements is false?

a) An active cell is the cell that receives the data or commands you give.
b) Each cell has a unique cell address made up of a cell column and a row.
c) A dark colored border, called a pointer, is used to identify the active cell.

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d) Use the Shift key to move the pointer one cell left, right, up or down.

Q-60 Which of the following feature of MS Excel is used to make all content visible within a cell by displaying it on multiple lines?

a) Merge and center
b) Wrap text
c) Orientation
d) Indentation

Q-61 Which of the following is used to divide a workbook into specific worksheets in MS Excel?

a) Sheet tab
b) name box
c) Formula bar
d) navigation button

	Word	Excel	
Min	10%	10%	
Max	500%	400%	
Default	100%	100%	

Q-62 Which of the following functions in MS Excel 2007 displays the absolute value of a number, which is a number without any symbol?

a) ASIN
b) ABS
c) AND
d) ACDS

Q-63 Which of the following cell reference is default in MS Excel?

a) mixed
b) Relative
c) Absolute
d) Active

Q-64 In MS Excel 2007, the option of spell check can be selected from the ------ tab.

a) Review
b) Formula — shift + F3
c) Help - F1
d) File

Research - Alt + Click on word

Q-65 What will be the value of the following MS Excel formula?
=SUMSQ(1,2,3,4)

a) 10
b) 24
c) 30
d) 34

Q-66 A cell in MS Excel 2010 can display ----- when that cell contains a number or date and its column width does not display all the characters required for its format.

a) *****
b) #####
c) **###
d) $$$$$

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Q-67 What is the maximum height of a row in MS Excel 2010?
a) 255 points
b) 100 points
c) 409 points
d) 128 points

Q-68 Which of the following is NOT an underline option available in the Font tab of the Format Cells dialog box in MS Excel?
1. Triple
2. Single accounting
3. Double accounting
4. Double

Font dialog box- Ctrl+Shift+F

Q-69 In MS Excel 2007, a file is saved with the _____ extension by default.
1. .xlx
2. .xls
3. .xlxs
4. .xlsx

Q-70 In MS Excel, 'Merge Cells' option is available in _____.
1. Alignment- Page Layout
2. Format Cells -Alignment
3. Formatting toolbar
4. Alignment- Review

Q-71 To freeze the top row in excel while scrolling the text, the option can be selected from the view tab in MS Excel under the window section in the freeze panes options
(a) Freeze First Row
(b) Fix Top Row
(c)Freeze Top Row
(d)Stick Top Row

Q-72 Which of the following keys is used on QWERTY keyboard to move the cursor up or down one cell at a time in MS Excel?
1. Insert
2. Page up-Page down
3. Home and End
4. Shift

Q-73 The process of changing the appearance of worksheet data in MS Excel to make it more presentable and attractive is called ____.
1. modifying
2. decorating
3. editing
4. formatting

Q-74 In MS Excel, things like sum, count and average of immediately selected cells are displayed on which of the following?- Status Bar

Q-75 Which of the following logical function in MS-Excel 2007 checks whether all the arguments are true and returns the result as 'TRUE' if all the arguments are true?
(1) NOT
(3) FALSE

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(2) NAND (4) AND

Q-76 What will be the value of the following MS Excel formula?
=AVERAGEA(5, 4, 4>3, 6)
a) 3.72 (c) ERROR
b) 4 (d) 5

Q-77 What is the maximum number of rows that can be in an MS Excel 2010 worksheet?
a) 16,000
b) 1,048,500
c) 16,384
d) 1,048,576

Q-78 Which of the following is not a valid formula in MS EXCEL 2007?
1. SUM
2. SUMPRODUCT
3. SUMIF
4. SUMADD

Q-79 In MS Excel sheet, a cell address is made up of?
1) row and column of a cell
2) row of a cell
3) column of a cell
4) Worksheet number

Q-80 Which of the following is used to move an active cell to the first column on the current row?
1. Page down
2. Page up
3. Home
4. Ctrl + Home

Ctrl+ Page up/down - move b/w sheets

Ctrl + Home — moves to the first cell of the sheet (A1)

Q-81 Which of the following feature of MS-Excel 2007 is used to quickly format a range of cells and convert it to table by choosing a predefined table style?
1. Sort & Filter
2. Conditional Formatting
3. Format as Table
4. Format Painter

Q-82 Which of the following keys is used to move the pointer left, right, up or down in a cell in an MS Excel worksheet?
1. Esc Key
2. Arrow Key
3. Shift Key
4. Alt Key

Q-83 Which of the following logical function is used in MS Excel 2007 to check whether an argument is true or not, and if all the arguments are false, then return the result as FALSE?
1. FALSE 2. NAND
3. TRUE 4. OR

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Q-84 What will be the output of MS Excel 2007 date formula '=DATE(2020,8,31)' if the selected date format is 'xx-xx-xxxx'?

1. 2020-31-08
2. 31/08/2020
3. 20-31-08
4. 31-08-2020

Q-85 Which of the following statements are false regarding selecting cells in MS Excel?

1. A border will be displayed around the selected cell.
2. The row heading of the selected cell will not be highlighted.
3. The column headings of the selected cells will be highlighted.
4. The cell will remain in the selected state until you click on another cell in the worksheet.

Q-86 Which of the following statements is false with respect to Workbooks in MS Excel?

1. The worksheets are labeled Sheet 1, Sheet 2 and Sheet 3 and so on.
2. Worksheet name cannot be changed in MS Excel.
3. Each Microsoft Excel worksheet is made up of columns and rows.
4. A workbook is made up of worksheets.

Q-87 In MS Excel 2020, what is the meaning of B1 cell address? B-Column 1-Row

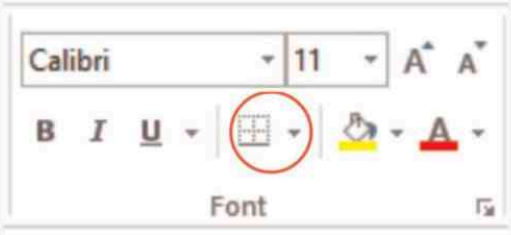
Q-88 What is the out put the of the following formula in Excel ?

=8-4^2/2+3

a) 3
b) 11
c) 7
d) 0

Q-89 Which of the following option is used to create border of cells/cells in MS Excel 2010?

Home tab - Font Group



Q-90 In MS Excel 2010, in which group of the Home tab, is Format Cell dialogue box available?

1. Clipboard
2. Language
3. Font — Ctrl+Shift+F
4. Editing

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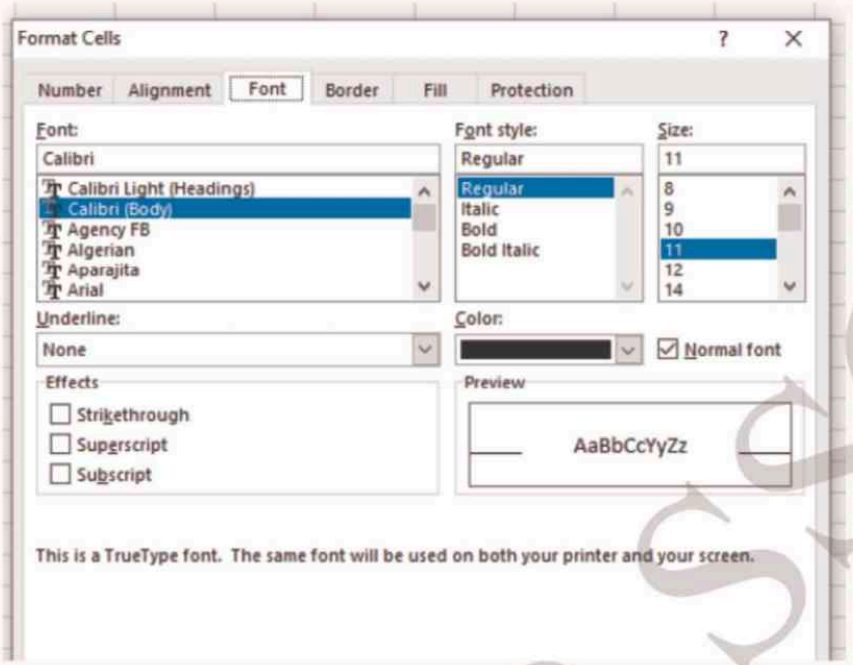

Q-91 In MS Excel 2010, what will be the result of the following function?
=ROUND(1.66666666666667,2)

1. 1.7
2. 2.00
3. 1.67
4. 1.68

Syntax

ROUND(number,num_digits)

Number Is the number you want to round.

Num_digits Specifies the number of digits to which you want to round the number.

Remarks

- If num_digits is greater than 0 (zero), then number is rounded to the specified number of decimal places.
- If num_digits is 0, then number is rounded to the nearest integer.
- If num_digits is less than 0, then number is rounded to the left of the decimal point.

Formula	Description (Result)
=ROUND(2.15, 1)	Rounds 2.15 to one decimal place (2.2)
=ROUND(2.149, 1)	Rounds 2.149 to one decimal place (2.1)
=ROUND(-1.475, 2)	Rounds -1.475 to two decimal places (-1.48)
=ROUND(21.5, -1)	Rounds 21.5 to one decimal place to the left of the decimal point (20)

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Q-92 Which of the following is not a method of inserting formula in MS Excel sheet?

1) Using the Insert Function from the Home Tab
2) typing a formula inside a cell
3) Select a formula from a group in the Formulas tab
4) Using the Insert Function Option from the 'Formulas Tab'

Q-93 Which of the following notation is used to represent a cell range in an MS Excel sheet containing cells A1, A2, A3, A4 and A5?

1. A1$:A5$
2. $A1:$A5
3. A1;A5
4. A1:A5

Q-94 What is the name of the current cell in MS Excel that has a cell boundary around it?

1) New cell
2) Active Cell
3) Current Cell
4) Passive Cell

Q-95 Which of the following options in MS Excel displays the first, previous, next and last worksheets in a workbook and also allows us to move to another worksheet? – Navigation Buttons

Q-96 Which one of the following MS Excel functions counts the number of cells in a range that are not empty?

1. COUNT() – Count no. of cell in range that contains numbers.
2. COUNTIF() – Count no. of cells that meet the given conditions.
3. COUNTBLANK() – Count the no of cells in a specified range of cell.
4. COUNTA()

Q-97 Which of the following is a valid cell reference for cells A1 to C13 in MS Excel 2010?

1. A1- C13
2. A1:C13
3. A1..C13
4. A1::C13

Q-98 The place in MS Excel that displays the contents of the current cell (cell) along with the contents of same cell is called the ?

a) Formula Bar
b) Address Bar
c) Text Bar
d) Content Bar

Q-99 What will be the result of MS Excel formula =(120*5/10^2)?

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1. 6
2. 9
3. 8
4. 7

Q-100 What will be the result of the following MS Excel formula?
=256/8/4/2
1. 0
2. 64
3. 16
4. 4*

*Excel calculates the formula from left to right, according to a specific order for each operator in the formula.

Q-101 Which of the following function keys can be used to edit a cell in an MS Excel worksheet?
1. F2
2. F5 — Go To
3. F3
4. F4

Q-102 In MS Excel, a workbook must contain at least one worksheets.

Q-103 In MS Excel, which of the following represents the name of both application and spreadsheet?
Title Bar

Q-104 The meaning of '^' (caret) operator in MS Excel is ?
(a) division
(b) addition
(c) exponentiation
(d) percentage

Q-105 In MS Excel, what is the use of Auto sum feature ?
(a) To get the total sum value of values in the range of numeric cells
(b) to get the total count of rows
(c) To get the total count of cells
(d) To get the total count of columns

Q-106 What is the following reference type?
= $B$3* $C$3
(a) Mixed Reference
(b) Absolute Reference
(c) Column Reference
(d) Relative Reference

Q-107 What is the output of the following Excel Sheet Formula ?
=LEN ("NAME")
(a) 10

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(b) 4
(c) 8
(d) 2

Q-108 What is the shortcut /hide ribbon bar in Microsoft Excel 2016?

(a) Shift + F1
(b) Shift + F2 — Add comment in a cell
(c) Ctrl + F1
(d) Ctrl + F2 — Print Preview

Q-109 What will be the MS Excel output of the function in Microsoft Excel 2016? = ODD (345.2).

(a) 347
(b) 345
(c) TRUE
(d) FALSE

Formula	Description	Result
=ODD(1.5)	Rounds 1.5 up to the nearest odd integer.	3
=ODD(3)	Rounds 3 up to the nearest odd integer.	3
=ODD(2)	Rounds 2 up to the nearest odd integer.	3
=ODD(-1)	Rounds -1 up to the nearest odd integer.	-1
=ODD(-2)	Rounds -2 up (away from 0) to the nearest odd integer.	-3

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LECTURE-17
MS POWERPOINT

MS Powerpoint — Application software used to create presentation
- Presentation software.
- In Libre office suit - Impress (Presentation Software
- Extension - .ppt (before 2007 version) .pptx (2007 and later versions)

Executable File- Powerpnt.exe

How to open Powerpoint in Windows :-

1. ⊞ Key + R → Run dialog box → Search 'powerpnt' → Enter
2. Start menu → Search MS Powerpoint → Select and Enter
3. Click application icon

Presentation Program- Powerpoint is a presentation program that allows users to create multimedia presentations on their PC, Mac, mobile devices.

Eg : Powerpoint, Google slides, Impress, Bruno (First commercial presentation program)

- **Presentation :** A set of slides or handouts that contain information you want to convey to an audience ; slide layout.
- **Layout** - Refers to the way things are arranged
- **Template** - Powerpoint template that already has a design concept, fonts, and color scheme, formatting toolbar, allows you many text formatting options

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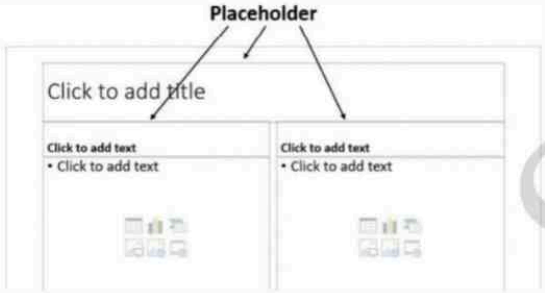
- **Clipart** - It is a collection of pre-made images that can be used in Powerpoint presentations to enhance their visual apeal.
- **Placeholder** - It is a pre-formatted container on a slide that holds content like text, images, charts, tables, videos and more.
  - Dotted line boxes that hold content



- **Animation** - It is a visual effect that adds movement, effects, and interactivity to a slide or object in a presentation.
  - include changes in color, size, entry and exit effect & transition

- **Handout** - It is a printed page that contains multiple slides from a presentation.
- **Slide** - Single page in a presentation that contains information to communicate to an audience. A group of slides is called slide deck.
- **Slide layout** - It is a pre-designed arrangement of content for a slide that includes placeholders, formatting and positioning.
- **Transition** - It is a visual effect that happens when you move from one slide to the next during a presentation.
- **Slide Master** - It controls the design & formatting of each slide layout, and therefore each slide.
  - Can be used to change font, images etc. to all the slides

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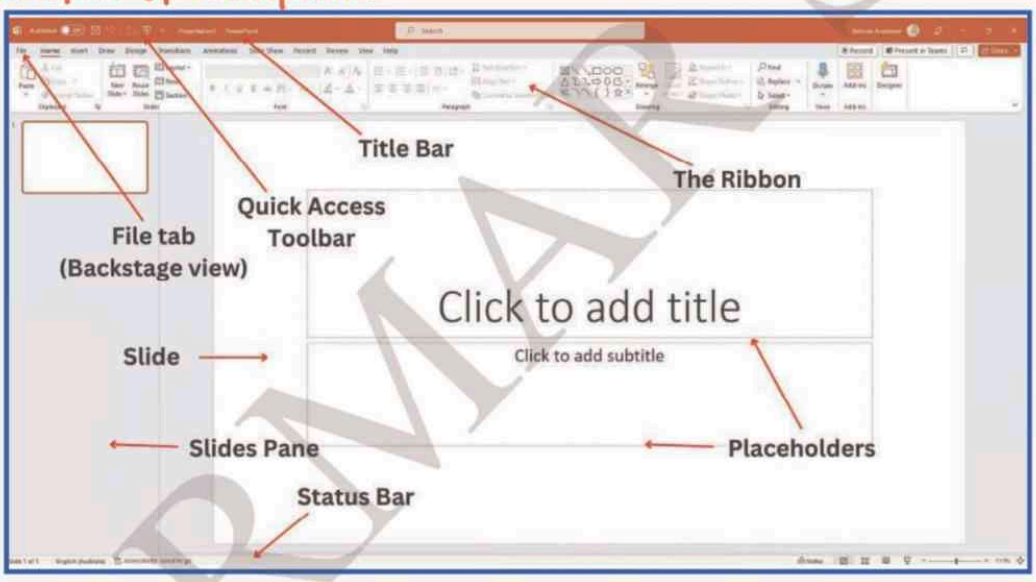
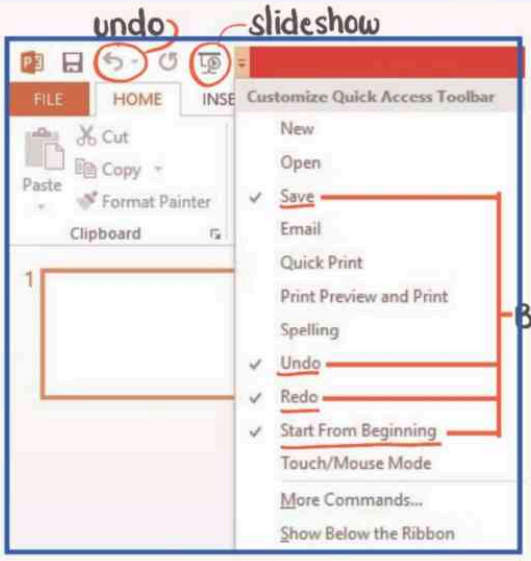
- **Theme (Design theme)-** It is a predefined set of formatting options that control the look and feel of your presentation. Theme setting includes backgrounds, layout, colors, fonts, sizes and bullets

- **Slideshow-** It is a presentation of a series of still images (slides) on a projection screen or electronic display device, typically in a prearranged sequence.

- **Interface of Powerpoint :-**



- **Quick Access Toolbar-**



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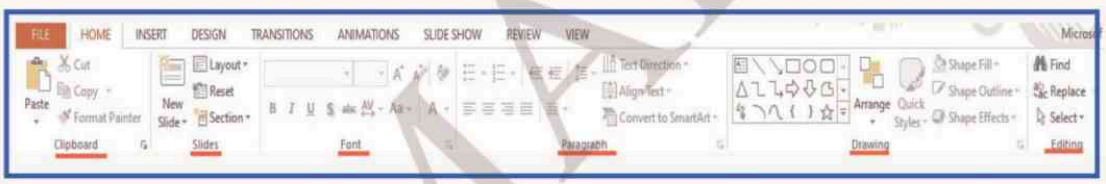
- Title Bar-

By default file name- Presentation 1

- Status Bar- It displays information about the current presentation and view, including:

- Slide Number
- Total no. of slides
- Theme template
- Command Information
- VIEW buttons
- Zoom Sliders

- Home tab-



- Clipboard- Cut- Ctrl+X | Shift+Del

Copy- Ctrl+C | Ctrl+Insert

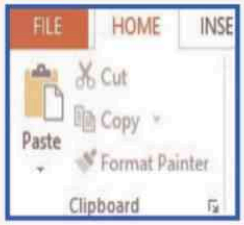
Paste- Ctrl+V | Shift+Insert

Paste special- Alt+Ctrl+V

Format Painter → Clear formatting- Ctrl+Spacebar

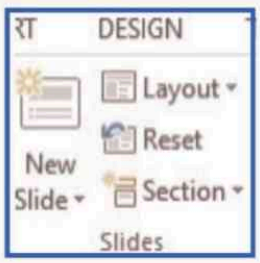
→ Copy formatting- Ctrl+Shift+C

→ Paste formatting- Ctrl+Shift+V



- Slides- to add new slide - Ctrl+M

to duplicate slide- Ctrl+D



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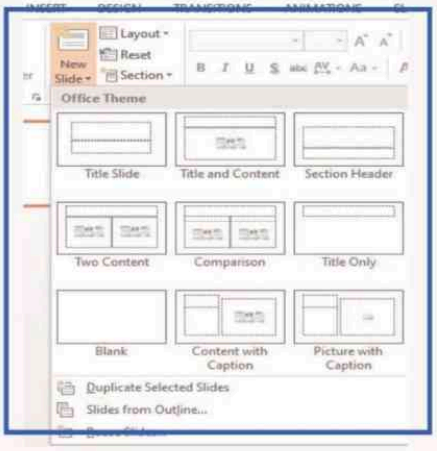
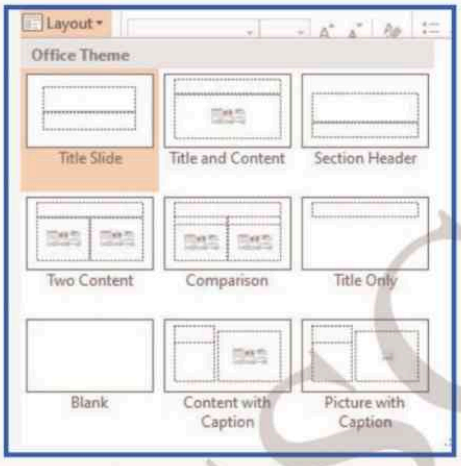
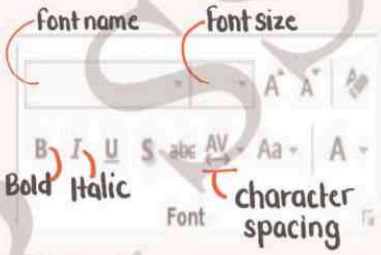
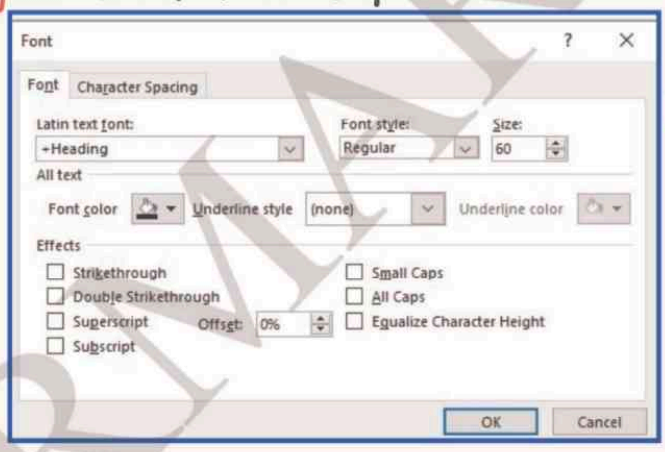




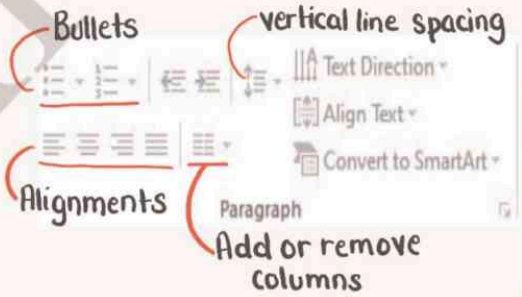
- Font - In drop down menu list, font size range → 8-96 (Min-Max)
  Overall range → Min-1 | Max-3600 points
  Font dialog box- Ctrl+T or Ctrl+Shift+F



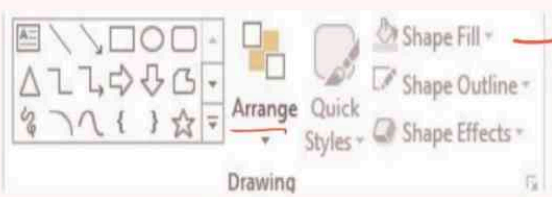


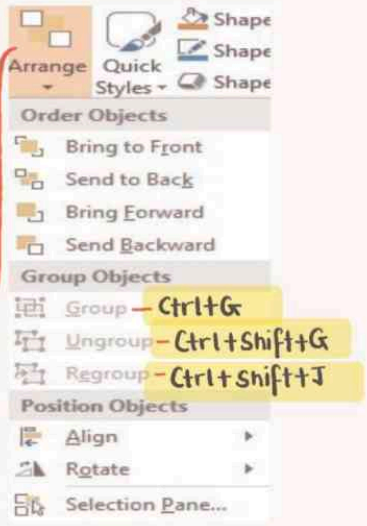
Change Case- Shift+F3

- Paragraph -



- Drawing -





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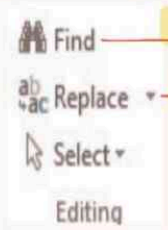
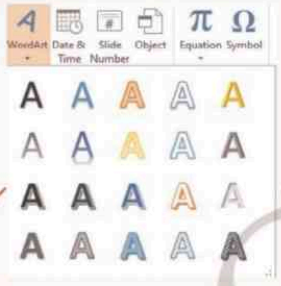
- Editing-



Ctrl+F

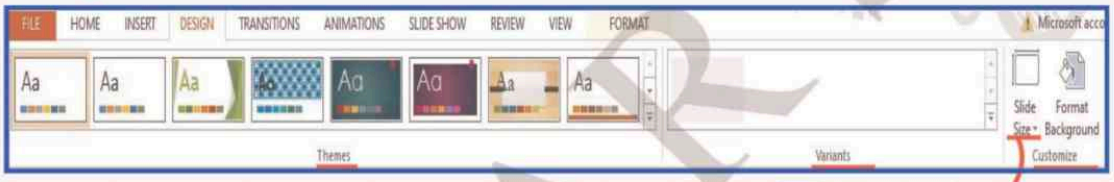
Ctrl+H

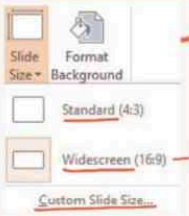
Go to- Ctrl+G



- Insert Tab-

- Design Tab-





By default

- Transition tab-

- Animation tab-

- Slide Show Tab-

F5

Shift+F5

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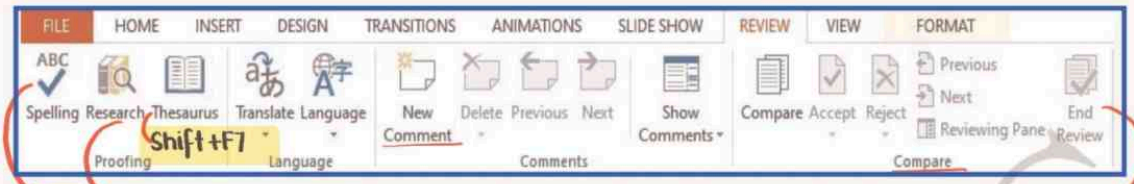
– Review Tab–



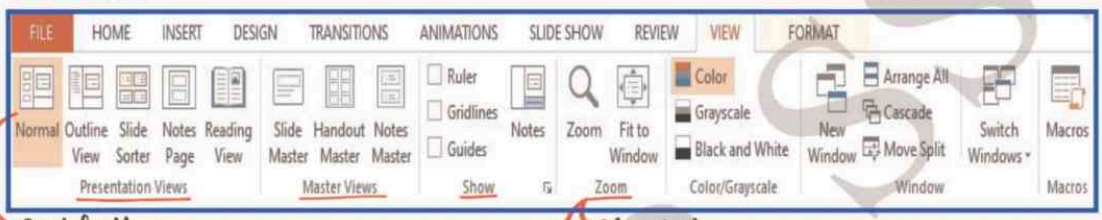
Shift+F7

F7

Alt+Click on Word

Option:
Ink (Start inking)

– View Tab–



By default view

Min-10%

Max-400%

Normal View

Edit your presentation slide by slide and navigate with thumbnails by using the Normal view.

Slide Sorter View

See thumbnails of all the slides in your presentation to easily rearrange them.

Outline View

Edit and jump between your slides in the Outline pane.

You can easily create an entire presentation just by pasting your outline from Word into the Outline pane.

Notes Page View

See how your presentation will look when printed out with notes.

Each page will contain one slide and its speaker notes, which you can edit in this view.

Reading View

Play your slide show in the PowerPoint window to see animations and transitions without switching to a full-screen slide show.

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View Notes Master

Customize how your presentation will look when printed out with your notes.

You can choose the design and layout of the notes page, such as background formatting and where headers/footers will appear. You can also select options for your page setup.

Handout Master View

Customize how your presentation will look as a printed handout.

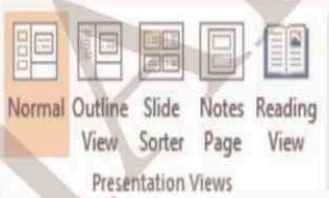
You can choose the design and layout of the handout, such as background formatting and where headers/footers will appear. You can also select options for your page setup.

Slide Master View

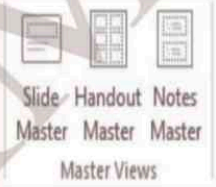
Master slides control the look of your entire presentation, including colors, fonts, backgrounds, effects, and just about everything else.

You can insert a shape or a logo on a slide master, for example, and it will show up on all your slides automatically.

- Type of presentation view:-



- Type of Master view-



- Slide Master View- A centralized location for making changes to the master slide and layouts. It can be used to add common elements like a logo that will be repeated throughout your slides. It can also make tweaks like adjusting background graphics or rearrange or delete placeholders.

- Handout Master- Allows you to manage the layouts for your handouts. Handouts can be used to give copy of slides to other people

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- **Notes Master** - Similar to the Handout Master, you are given one layout to work with. You can select or deselect your headers and footers, the date, and page numbers.

- **Macros** - It is used to define a sequence of actions to perform on a document or multiple documents that can be executed again and again
  Ribbon << View Tab << Macros (Alt+F8)

- **Powerpoint Shortcuts** -
- Create new presentation - Ctrl+N
- Add a new slide - Ctrl+M
- Open the Font dialog box - Ctrl+T or Ctrl + Shift + F
- Insert a hyperlink - Ctrl+K
- Go to the next slide - Page down / Down Arrow Key
- Go to previous slide - Page up or up arrow key (↑)
- Start slide show - F5
- End the slide show - Esc key
- Print a presentation - Ctrl+P
- Close Powerpoint - Ctrl+Q / Ctrl+W
- Duplicate a slide - Ctrl+D
- Select all objects on a slide - Ctrl+A
- Group the selected object - Ctrl+G
- Ungroup the selected group - Ctrl + Shift + G
- Regroup the selected objects - Ctrl + Shift + J
- Play or Pause media - Ctrl + Spacebar
- To insert a picture - F4
- To open customize status bar menu - Shift + F10
- Save - Shift + F12 or Ctrl + S

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- Open font Dialog Box- Ctrl+T / Ctrl+Shift+F
- Increase the font size- Ctrl+ Shift+> / Ctrl+]
- Decrease the font size- Ctrl+ Shift+< / Ctrl+[
- Switch b/w Sentence, lower or uppercase- Shift+ F3
- Switch to Presenter view- Alt+F5
- Switch to slide show- F5
- Toggle b/w outline and thumbnail views- Ctrl+Shift+ Tab
- Hide/show Ribbon- Ctrl+F1
- Show or hide the grid- Shift+F5
- Open the selection pane- Alt+F10
- to edit a focused item- F2
- To jump last slide of the presentation- Ctrl+ End key
- To jump to first slide of presentation- Ctrl+ Home key

Questions

Q-1 In Microsoft Powerpoint, what is the shortcut key combination to insert a new slide in a presentation?

A Ctrl+N — New presentation

B. Ctrl+D — Duplicate a slide

C. Ctrl+M

D. Ctrl+I — Italic text

Q-2 How can we add text to a slide in MS-Powerpoint?

A) Note box

B) Text box

C) Dialogue Box

D) Notes page

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Q-3 Which view in MS Powerpoint is useful for editing or formatting a single slide at a time?

A) Normal View
B) Reading View
C) Slide Sorter View
D) Outline View

Q-4 Which of the following extensions is used to save MS-Powerpoint applications?

A) .txt — text file - Note Pad
B) .doc
C) .docx
> Word extension
D) . ppt

Q-5 Where can you find the options 'From Beginning' and 'From Current Slides' to run a slide show in MS PowerPoint?

A) Home tab
B) Slide Sorter tab
C) Slide Show tab
D) View tab

Q-6 Which key can be pressed to initiate a slide show in MS Powerpoint?

A) F4 - to repeat last action
B) F2 - edit
C) F5
D) F8

Q-7 The slide no. can be added to each slide of the MS Powerpoint presentation from which of the following?

A) View
B) Footer
C) Table design
D) Page formatting

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Q-8 Which Shortcut key is used to paste a slide in Microsoft Powerpoint?

A) Ctrl+V
C) Ctrl+X – Cut
B) Ctrl+P – Print
D) Ctrl+C – Copy

Q-9 What is the keyboard shortcut for inserting a new slide into an MS-Powerpoint Presentation?

A) Ctrl+X – Cut
C) Ctrl+S – Save
B) Ctrl+M
D) Ctrl+N – New presentation

Q-10 In PPT What method can be used to move among slides if your hands are already on the keyboard? - Using Keyboard's directional (arrow) keys

Q-11 In MS Powerpoint, in order to see all the slides on one screen us:

A) View slide sorter
C) View Master
B) View slide
D) View Slide Show

Q-12 The File that consists of readymade styles that we can easily use for our presentation is known as:

A) Pre formatting
C) Wizard
B) Template
D) AutoStyle

Q-13 Objects on the slide that hold text are called - Place holders

Q-14 What is the default extention for a Powerpoint presentation in versions 2007 or later? - .pptx

Q-15 In power point, themes could be found under – Design Tab

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Q-16 Task pane allows you to create a new presentation and open an existing presentation.

Q-17 To use the exact same font type, size and color in the title of all the slides in a Powerpoint presentation, you will – Use slide master.

Q-18 Which of the following is not one of the Powerpoint's View?

A) Slide Sorter View
B) Presentation View
C) Outline View
D) Normal View

Q-19 In Powerpoint, dotted areas in an empty slides are called- Placeholders.

Q-20 Which type of view is not present in MS-PowerPoint?

A) Extreme animation
B) Slide show
C) Slide Sorter
D) Normal

Q-22 Which shortcut key is used to start a presentation from the beginning in PowerPoint? – F5

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notes

DATE / /

Debasish...

NOTES

DEBASISH
COLLECTION

COMPUTER ONE SHOT

1. 'PSD' is a file extension for which type of computer file?

'PSD' किस प्रकार की कंप्यूटर फ़ाइल के लिए फ़ाइल एक्सटेंशन है?

1. Adobe Acrobat
2. Adobe PhotoShop
3. Microsoft Word
4. PaintShop Pro

Photoshop document

.doc – 2007 & earlier versions,
.docx – after 2007 versions

.pdf

.psp

-> .txt – text file (notepad)

- Audio extensions:-

  -> .mp3, .wav, .flac

- Video file extensions:-

  -> .mp4, .mdv, .avi, .mpeg, .mkv, .flv

  moving picture expert group

EXTENSION	FORMAT NAME	DESCRIPTION
.jpg / .jpeg	JPEG (Joint Photographic Experts Group)	Most common; lossy compression; used in web and photography
.png	PNG (Portable Network Graphics)	Lossless compression; supports transparency
.gif	GIF (Graphics Interchange Format)	Supports animation; limited to 256 colors
.bmp	BMP (Bitmap)	Uncompressed; large file size; Windows native format
.tif / .tiff	TIFF (Tagged Image File Format)	High quality; used in printing, scanning, archiving
.webp	WebP	Developed by Google; small size with good quality (lossy/lossless)
.psd	Photoshop Document	Adobe Photoshop's native format; supports layers
.heif / .heic	High Efficiency Image Format	Used by Apple; better compression than JPEG
.raw	RAW Image	Unprocessed camera data; used in DSLR photography
.ico	Icon File	Used for website and desktop icons

Image file extensions

2. Which among the following units is used to count the speed of modern printers?

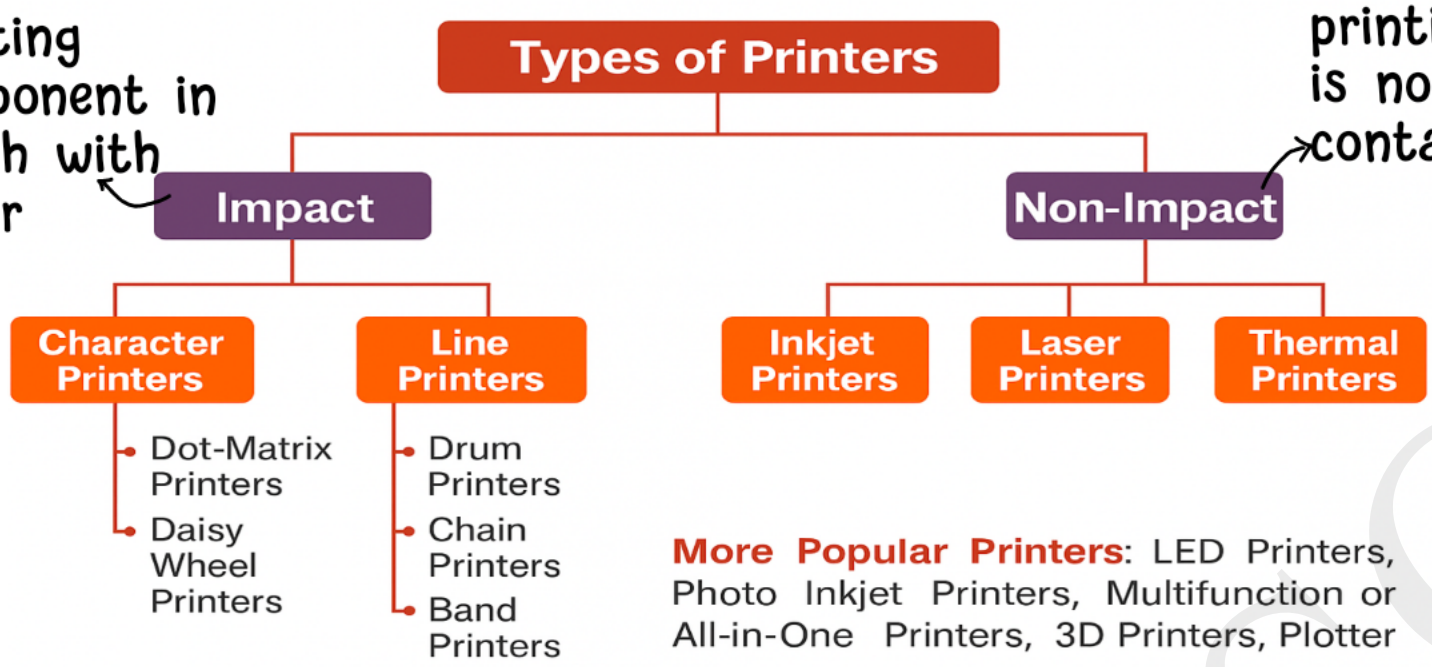
आधुनिक प्रिंटर की गति गिनने के लिए निम्नलिखित में से किस इकाई का उपयोग किया जाता है?

1. LPM
2. BIT
3. CPM
4. PPM

Page per minute

printing component in touch with paper

printing component is not in Direct contact of paper



More Popular Printers: LED Printers, Photo Inkjet Printers, Multifunction or All-in-One Printers, 3D Printers, Plotter

3. In Microsoft Excel, a workbook is a collection of:

माइक्रोसॉफ्ट एक्सेल में, कार्यपुस्तिका निम्नलिखित का संग्रह है:

1. charts
2. word books
3. photos
4. worksheets

application software → designed for specific task

- group of cells -> worksheet
- Group of worksheets -> workbook

4. Who is considered to be the Father of Modern Computers?

आधुनिक कम्प्यूटर का जनक किसे माना जाता है?

1. James Gosling → Java programming language
2. Alan Turing
3. Charles Babbage → father of computer
4. Gordon E Moore

TITLE / FIELD	PERSON NAME	CONTRIBUTION
Father of the Computer	Charles Babbage	Designed the first mechanical computer – the Analytical Engine
Father of the Personal Computer	Ed Roberts	Created the MITS Altair 8800, the first widely sold PC
Father of the Microprocessor	Marcian Hoff (Ted Hoff)	Designed the first microprocessor at Intel
Father of the Internet	Vint Cerf & Bob Kahn	Developed TCP/IP protocols
Father of the World Wide Web & HTML	Tim Berners-Lee	Invented the WWW and the first web browser
Father of Artificial Intelligence (AI)	John McCarthy	Coined the term "AI" and developed Lisp programming language
Father of Computer Programming	Ada Lovelace	Wrote the first algorithm intended for a machine (Analytical Engine)
Father of Operating Systems	Gary Kildall	Developed CP/M, one of the first operating systems for microcomputers
Father of Supercomputing	Seymour Cray	Built the first supercomputers (Cray-1 and beyond)

Father of Information Theory	Claude Shannon	Founded the field of information theory
Father of the Laptop	Adam Osborne	Developed the Osborne 1, the first portable computer
Father of the Graphical User Interface (GUI)	Douglas Engelbart	Invented the computer mouse and demonstrated the first GUI
Father of Indian IT Industry	Narayan Murthy	Founded Infosys, pivotal in India's IT revolution
Father of Free Software Movement	Richard Stallman	Launched the GNU Project and promoted software freedom

5. Internet was started in India on:

भारत में इंटरनेट की शुरुआत कब हुई थी:

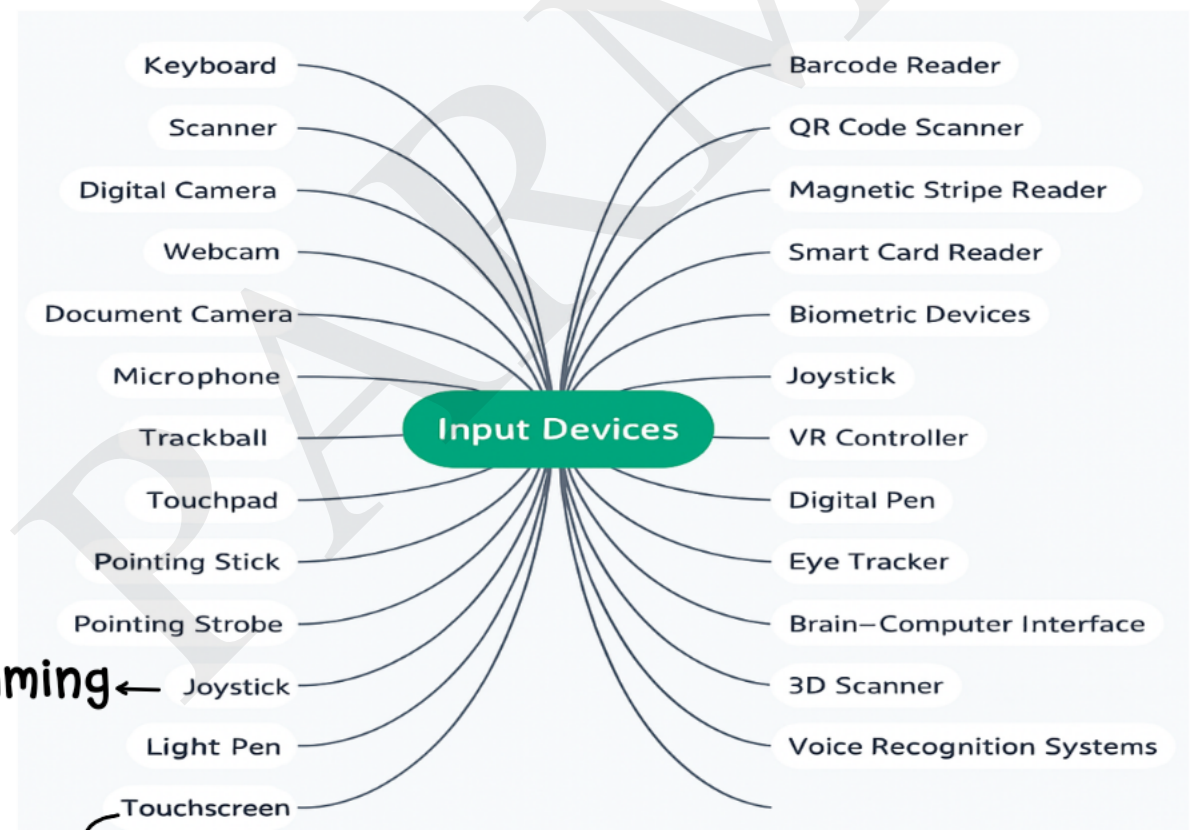
1. 9th August, 1996
2. 11th August, 1995
3. 8th August, 1994
4. 15th August, 1995

6. Which among the following is an output device in the context of computer system?

कंप्यूटर सिस्टम के संदर्भ में निम्नलिखित में से कौन सा आउटपुट डिवाइस है?

1. Track ball
2. Plotter → prints banners
3. Light pen
4. Magnetic scanner

- Output devices -> gives output to the input commands in form of graphics/ sound/ paper.



gaming ← Joystick

Touchscreen → works as both input & output device

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- Optical Recognition Technologies (Input devices) :-

1. OCR – Optical Character Recognition – text Recognition
2. OMR – Optical Mark Recognition – marked area detection
3. MICR – Magnetic Ink Character Recognition – cheques processing

- Output devices:-

Monitor (VDU – Visual Display Unit), touchscreen, printer, fax machine, Braille reader, Speakers, Headphones, Digital signage displays, projector, Virtual Reality Headset (VR Headset), Smart board/ interactive whiteboard plotter

7. Which of the following is NOT an output device?

निम्नलिखित में से कौन आउटपुट डिवाइस नहीं है?

1. Monitor
2. Speaker
3. Scanner
4. printer

8. In recognition technology OMR is used, what does M stand for?

पहचान तकनीक में OMR का प्रयोग किया जाता है, M का क्या अर्थ है?

1. Mark
2. Mirroring
3. Manipulator
4. Magnetic

9. Which of the following is NOT a database software used on computers?

निम्नलिखित में से कौन सा कंप्यूटर पर उपयोग किया जाने वाला डेटाबेस सॉफ्टवेयर नहीं है?

1. FoxPro
2. MS Word → document (word processing software)
3. MS Access
4. Oracle

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- Some database softwares –> MySQL, SQLite, firebird, Amazon RDS, filemaker, foxpro, Oracle

10. _____ is a mechanism used by the Government of India to contact citizens across India electronically via emails, outbound dialing and SMS messages.

_____ भारत सरकार द्वारा ईमेल, आउटबाउंड डायलिंग और एसएमएस संदेशों के माध्यम से पूरे भारत में नागरिकों से इलेक्ट्रॉनिक रूप से संपर्क करने के लिए उपयोग किया जाने वाला एक तंत्र है।

1. EMSIPS
2. eGreetings
3. eOffice
4. eSampark

1 Bit = Binary Digit → smallest unit

8 Bits = 1 Byte
1024 Bytes = 1 KB (Kilo Byte)
1024 KB = 1 MB (Mega Byte)
1024 MB = 1 GB (Giga Byte)
1024 GB = 1 TB (Terra Byte)
1024 TB = 1 PB (Peta Byte)
1024 PB = 1 EB (Exa Byte)
1024 EB = 1 ZB (Zetta Byte)
1024 ZB = 1 YB (Yotta Byte)
1024 YB = 1 (Bronto Byte)
1024 Brontobyte = 1 (Geop Byte)

Geop Byte is The Highest Memory Measurement Unit

Memory measurement units in computer

- 4 bit = 1 Nibble

11. 1 Peta Byte is equal to:

1 पेटा बाइट बराबर है:

1.1024GB
2. 1024 MB
3. 1024 TB
4. 1024KB

- KB < MB < GB < TB < PB < EB < ZB < YB < BB < Geopbyte

कब में गया तब पंजाब इब ज्यादा या बरबाद जियो

12. Which of the following is NOT a type of desktop operating system?

निम्नलिखित में से कौन डेस्कटॉप ऑपरेटिंग सिस्टम का प्रकार नहीं है?

1. Windows
2. Mac
3. Android → Mobile
4. Linux

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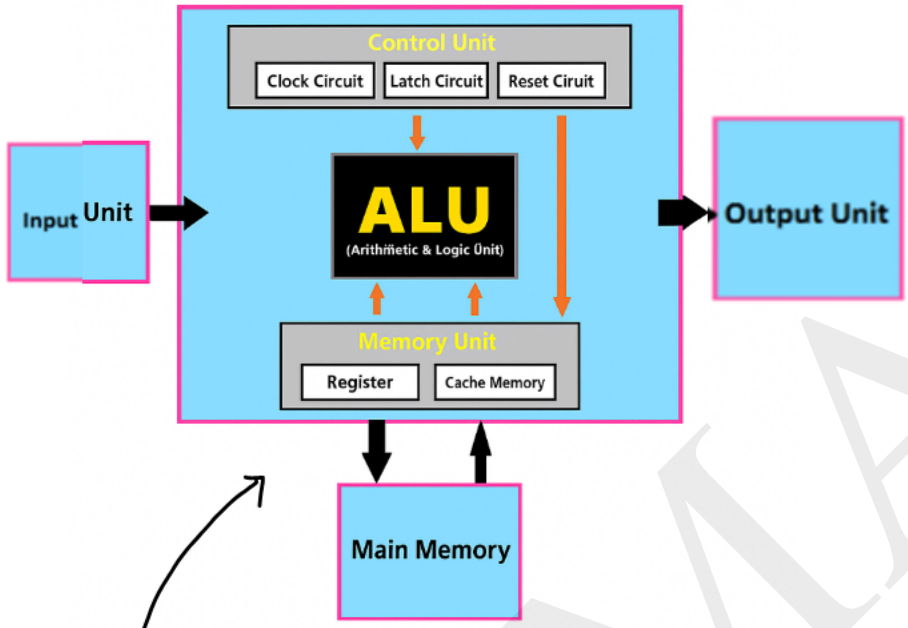
Microsoft Windows (Proprietary)

- Windows 11
- Windows 10
- Windows 8/8.1
- Windows 7
- Windows Vista
- Windows XP
- Windows 2000 / NT
- Windows 98/95

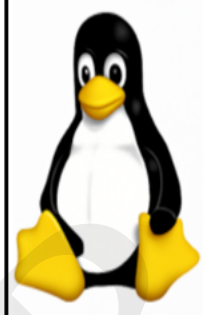
macOS (Apple Proprietary)

- macOS Sonoma
- macOS Ventura
- macOS Monterey
- macOS Big Sur
- macOS Catalina
- macOS Mojave
- OS X Series (Yosemite, El Capitan, etc.)

Central Processing Unit (CPU)



Linux Distributions (Open Source)



- Ubuntu
- Fedora
- Debian
- Linux Mint
- Arch Linux
- Manjaro
- Kali Linux
- Zorin OS
- Pop!_OS
- Red Hat Enterprise Linux (RHEL)
- Elementary OS

13. Which of the following are the two components of the CPU of a computer?

निम्नलिखित में से कौन से कंप्यूटर के सीपीयू के दो घटक हैं?

1. Control unit and Bus
2. Control unit and ALU → Arithmetic logic unit
3. ALU and Bus
4. Registers and Main memory

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14. Ubuntu, Mint and Fedora are versions of:

उबंटू, मिंट और फेडोरा इनके संस्करण हैं:

1. MS DOS
2. windows 10
3. Linux
4. Apple MAC OS X

15. _____ is a high-level programming language for scientific and mathematical use.

_____ वैज्ञानिक और गणितीय उपयोग के लिए एक उच्च स्तरीय प्रोग्रामिंग भाषा है।

1. EDP
2. FORTRAN → Formula translation, by John Backus in 1957
3. COBOL → Common Business Oriented Language
4. RFID

- Some high level programming languages:–

Python (by Guidon Van Rossum), Java (by James Gosling), C++, JavaScript, Ruby, Swift, Go (Golang), PHP (Personal homepage – afterwards Hyper text Processor), Scala, Perl

- FORTRAN – 1st High level language

16. Inventor of Bluetooth is _____ .

ब्लूटूथ का आविष्कारक _____ है।

1. Charles Simonyi
2. Bill gates
3. Paul Allen
4. Jaap Haartsen

unit – Piconet

- it is PAN – Personal Area Network
- it works on Radiowaves with ultra high frequency
- Range – 10 m

17. In Telecom field, ISP stands for:

दूरसंचार क्षेत्र में, ISP का तात्पर्य है:

1. Internet Speed Provider
2. Internet Speed Protocol
3. Internet Service Protocol
4. Internet Service Provider

→ Eg – Jio, airtel, BSNL

18. Which of the following websites is NOT related to Education?

निम्नलिखित में से कौन सी वेबसाइट शिक्षा से संबंधित नहीं है?

1. www.ncert.nic.in
2. www.ignou.ac.in
3. www.onlinesbi.com → Banking business purpose
4. www.education.nic.in

.edu – educational websites

19. Which of the following is needed to access the Internet?

इंटरनेट तक पहुंचने के लिए निम्नलिखित में से क्या आवश्यक है?

1. Unique IP Address → every website & device has unique IP address for smooth data transmission
2. Email
3. TV
4. Hacker

- IP–v4 –> 32 bit
- IP–v6 –> 128 bit

20. Which of the following is an antivirus software?

निम्नलिखित में से कौन सा एंटीवायरस सॉफ्टवेयर है?

1. Google
2. XML
3. Norton
4. Microsoft

- Antivirus softwares -> Quickheal, Avira, Macfree, Avast

21. What is the full form of ADSL in the context of telephony?

टेलीफोनी के संदर्भ में ADSL का पूर्ण रूप क्या है?

1. Asymmetrical Digital Subscriber Line
2. Asymmetrical Digital Software Line
3. Aligned Digital Software Line
4. Aligned Digital Subscriber Line

can use internet with telephone wire

22. What type of signals does DVI- I pass?

DVI-I किस प्रकार के सिग्नल पास करता है?

1. Passes neither digital nor analog video signals
2. Passes both digital and analog video signals
3. Passes only digital video signals
4. Passes only analog video signals

Digital Visual/Video interface

- PS/2 port -> for mouse & Keyboard – 6 pins in circular shape

  -> green for mouse & purple for keyboard

- VGA port -> Video Graphics Array
- HDMI port -> High Definition Multimedia Interface
- USB -> Universal serial Bus
- SATA -> Serial Advanced Technology Attachment
- PATA -> Parallel Advanced Technology Attachment
- SATA & PATA -> in motherboard for connecting hard disk & Solid State drives (SSD)
- RJ45 -> Ethernet port

DOWNLOAD - PARMAR ACADEMY APP YOUTUBE - PARMAR SSC TELEGRAM - PARMAR SSC

23. Which of the following is NOT a super computer?

निम्नलिखित में से कौन सुपर कंप्यूटर नहीं है?

1. Cray-3
2. PARAM
3. PDA → Personal digital assistant
4. EKA

PARAM Series Supercomputers

NAME	YEAR INTRODUCED	KEY HIGHLIGHTS
PARAM 8000	1991	India's first indigenous supercomputer
PARAM 8600	1992	Enhanced version with improved performance
PARAM 9000	1994	Available in multiple configurations (9000/SS, 9000/US)
PARAM 10000	1998	Peak performance ~100 GFLOPS
PARAM Padma	2002	First Indian supercomputer on TOP500 list
PARAM Yuva	2008	Used for scientific research and modeling
PARAM Yuva II	2013	Upgraded with enhanced performance (~524 TFLOPS)
PARAM Kanchenjunga	2015	Installed at NIT Sikkim
PARAM Shavak	2015	Desk-side supercomputer for institutions
PARAM Shivay	2019	Installed at IIT-BHU under National Supercomputing Mission
PARAM Brahma	2020	Pune-based system
PARAM Siddhi-AI	2020	India's fastest AI supercomputer (~5.267 PFLOPS)
PARAM Ganga	2022	Installed at IIT Roorkee
PARAM Pravega	2022	Installed at IISc Bangalore
PARAM Ananta	2022	Installed at IIT Gandhinagar
PARAM Shakti	2022	Installed at IIT Kharagpur

Supercomputer Name	Year of Launch	Purpose / Specialization
EKA	2007	General-purpose high-performance computing
Annapurna	~2014	Space research and satellite data processing
Pratyush	2018	Weather forecasting
Mihir	2018	Climate research and atmospheric modeling
SAGA-220	2011	Aerospace simulation & research
Aaditya	~2013	Climate modeling
Vikram-100	~2015	Scientific simulations and astrophysics

SUPERCOMPUTER NAME	COUNTRY	NOTES / DEVELOPER
El Capitan	USA	Fastest (2025); Developed by HPE & AMD
Frontier	USA	Former fastest; Oak Ridge National Lab
Fugaku	Japan	RIKEN and Fujitsu
Summit	USA	IBM and NVIDIA
Sierra	USA	Lawrence Livermore National Lab
LUMI	Finland	EuroHPC joint initiative
Sunway TaihuLight	China	National Supercomputing Center, Wuxi
Tianhe-2 (MilkyWay-2)	China	National University of Defense Technology
Selene	USA	Built by NVIDIA
Perlmutter	USA	NERSC, Berkeley Lab
Aurora	USA	Intel & Cray at Argonne National Lab

- 1st Supercomputer of India – PARAM 8000
- Speed of supercomputer is measured in –> fLOPS (floating point operations per second)
- 1st Supercomputer –> CDC–6600 (1964)

24. What is the full form of PROM?

PROM का पूर्ण रूप क्या है?

A) Primary Read-Only Memory
B) Programmable Read-Only Memory
C) Protected Read-Only Memory
D) Permanent Read-Only Memory

- Types of Read Only Memory (ROM):–

1. ROM – permanently written during manufacturing
2. PROM – Programmable ROM – can be programmed by user once
3. EPROM – Erasable Programmable ROM – can be erased using UV lights & reprogrammed
4. EEPROM – Electrically Erasable Programmable ROM– can be erased & reprogrammed using electric signal
5. Flash ROM – type of EEPROM with faster erase/ Program capability

25. An interface between the human user and the computer hardware is known as _____ .

मानव उपयोगकर्ता और कंप्यूटर हार्डवेयर के बीच इंटरफेस को _____ के रूप में जाना जाता है।

1. modem
2. operating system
3. software
4. operating unit

26. FORTRAN is the _____.

फोरट्रान _____ है।

1. language of the fifth generations of computers.
2. first electronic digital computer of the world.
3. link to connect all the universities.
4. first high level programming language.

27. ROM is composed of:

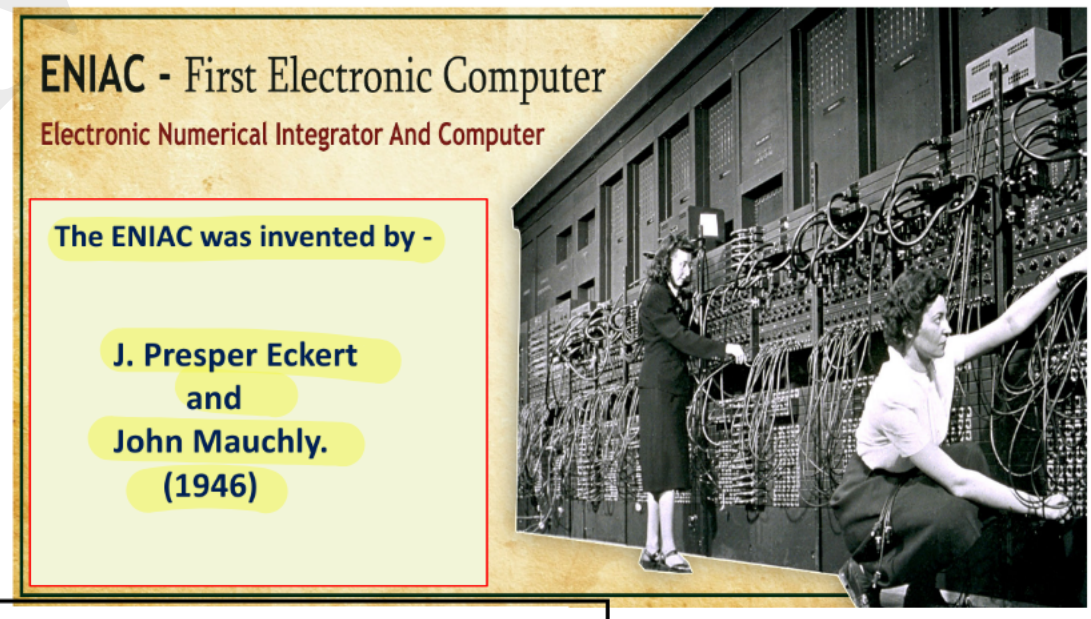
ROM निम्नलिखित से बना होता है:

1. semiconductors
2. photoelectric cells
3. integrated circuits
4. magnetic tapes → type of secondary memory

28. ENIAC, the first general-purpose electronic computer, stands for:

ENIAC, पहला सामान्य प्रयोजन इलेक्ट्रॉनिक कंप्यूटर, का अर्थ है:

1. Electronic Numerical Integrator and Computer
2. Electronic Network Interactive Analytic Computer
3. Electronic Network Integrated Analytical Computer
4. Electronic Numerical Integrated Automatic Computer



29. What is the full form of ODBC in terms of computing?

कंप्यूटिंग की दृष्टि से ODBC का पूर्ण रूप क्या है?

1. Open data base compliance
2. Open data base correction
3. Open data base connection
4. Open data base connectivity

- Open database Connectivity – ODBC:–

  standard API that allows applications to access data from a variety of database management systems (DBMS) using SQL.

- API –> Application Programming Interface

30. **Which of the following is not a version of Android?**

निम्नलिखित में से कौन सा एंड्रॉइड का संस्करण नहीं है?

1. Marshmallow
2. Gingerbread
3. Oreo
4. Candy

Name	Internal codename[11]	Release date
Android 1.0	—	September 23, 2008
Android 1.1	Petit Four	February 9, 2009
Android Cupcake	Cupcake	April 27, 2009
Android Donut	Donut	September 15, 2009
Android Eclair	Eclair	October 27, 2009
		December 3, 2009
		January 11, 2010[18]
Android Froyo	Froyo	May 20, 2010
Android Gingerbread	Gingerbread	December 6, 2010
		February 9, 2011
Android Honeycomb	Honeycomb	February 22, 2011
		May 10, 2011
		July 15, 2011
Android Ice Cream Sandwich	Ice Cream Sandwich	October 18, 2011
		December 16, 2011
Android Jelly Bean	Jelly Bean	July 9, 2012
		November 13, 2012
		July 24, 2013
Android KitKat	Key Lime Pie	October 31, 2013
		June 25, 2014
Android Lollipop	Lemon Meringue Pie	November 4, 2014[19]
		March 2, 2015[20]
Android Marshmallow	Macadamia Nut Cookie	September 29, 2015[21]
Android Nougat	New York Cheesecake	August 22, 2016
		October 4, 2016
Android Oreo	Oatmeal Cookie	August 21, 2017
		December 5, 2017
Android Pie	Pistachio Ice Cream[22]	August 6, 2018
Android 10	Quince Tart[23]	September 3, 2019
Android 11	Red Velvet Cake[23]	September 8, 2020
Android 12	Snow Cone	October 4, 2021
Android 12L	Snow Cone v2	March 7, 2022
Android 13	Tiramisu	August 15, 2022
Android 14	Upside Down Cake[26]	October 4, 2023
Android 15	Vanilla Ice Cream[27]	September 3, 2024
Android 16	Baklava[28]	May 13, 2025[29]

Android versions

31. _____ is an Integrated Library Management Software developed by National Informatics Centre (NIC), Department of Electronics & Information Technology. The application is useful for automation of in-house activities of libraries and to provide various online member services.

_____ राष्ट्रीय सूचना विज्ञान केंद्र (एनआईसी), इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी विभाग द्वारा विकसित एक एकीकृत पुस्तकालय प्रबंधन सॉफ्टवेयर है। यह एप्लिकेशन पुस्तकालयों की आंतरिक गतिविधियों के स्वचालन और विभिन्न ऑनलाइन सदस्य सेवाएँ प्रदान करने के लिए उपयोगी है।

1. Digi LOCKER → to keep important documents
2. eOffice
3. Disha
4. e-Granthalaya

32. The full form of IBM in IBM Corporation is:

आईबीएम कॉर्पोरेशन में आईबीएम का पूर्ण रूप है:

1. Indian Business Machines
2. International Business Machines
3. Indian Broadcasting Machines
4. International Broadcasting Machines

33. In the context of web pages, what does SEO stand for?

वेब पेजों के संदर्भ में SEO का क्या अर्थ है?

1. Search Engine Optimisation
2. Search Editing Optimisation
3. Slack Editing Optimisation
4. Slack Engine Optimisation

→ Increase website ranking

Boost organic traffic

Target related keywords

34. A programme or piece of code that is loaded onto a person's computer without his/her knowledge and runs against his/her wishes is a type of malware called:

एक प्रोग्राम या कोड का टुकड़ा जो किसी व्यक्ति के कंप्यूटर पर उसकी जानकारी के बिना लोड किया जाता है और उसकी इच्छा के विरुद्ध चलता है, एक प्रकार का मैलवेयर कहलाता है:

1. Virus
2. Trojan Horse
3. Spyware
4. Zeus

- Some virus types:-

1. File infector virus – attached to executable files (.exe) & spreads when file runs

2. Macro virus –> infects documents (like MS Word & Excel) using macro scripts

3. Boot sector virus – infects the boot sector of storage devices, activates when system starts

4. Trojan Horse – disguises as legitimate software but performs malicious activities

5. Worm – self replicating, doesn't need a host file to spread

6. Spyware – secretly collects user information

7. Adware – automatically displays or downloads ads, slowing down the system

8. Ransomware – locks or encrypts files & demands payment to unlock

9. Polymorphic virus – changes its code to avoid detection by antivirus

10. Resident virus – hides in the system memory & infects files when opened or modified

11. Rootkit – Hides malicious activities by gaining root level access to the system

12. Logic Bomb – activates when specific conditions are met (date/ time,etc.)

Type of Virus	कार्य / व्यवहार
File Infector Virus	निष्पादन योग्य फ़ाइलों (.exe) से जुड़ता है और फ़ाइल चलाने पर फैलता है
Macro Virus	मैक्रो स्क्रिप्ट का उपयोग करके दस्तावेज़ों (जैसे MS Word या Excel) को संक्रमित करता है
Boot Sector Virus	भंडारण उपकरणों के बूट सेक्टर को संक्रमित करता है; सिस्टम शुरू होने पर सक्रिय होता है
Trojan Horse	वैध सॉफ़्टवेयर के रूप में प्रच्छन्न लेकिन दुर्भावनापूर्ण गतिविधियाँ करता है
Worm	होस्ट फ़ाइल की आवश्यकता के बिना स्वयं-प्रतिकृति और नेटवर्क पर फैलता है
Spyware	गुप्त रूप से उपयोगकर्ता की जानकारी (पासवर्ड, ब्राउज़िंग डेटा, आदि) एकत्रित करता है।
Adware	स्वचालित रूप से विज्ञापन प्रदर्शित या डाउनलोड करता है, जिससे अक्सर सिस्टम धीमा हो जाता है
Ransomware	फ़ाइलों को लॉक या एन्क्रिप्ट करता है और पहुंच बहाल करने के लिए भुगतान की मांग करता है
Polymorphic Virus	एंटीवायरस सॉफ़्टवेयर द्वारा पता लगाने से बचने के लिए अपना कोड बदलता है
Resident Virus	सिस्टम मेमोरी में छिप जाता है और फ़ाइलों को खोलते या संशोधित करते ही उन्हें संक्रमित कर देता है
Rootkit	सिस्टम तक रूट-स्तर तक पहुंच प्राप्त करके दुर्भावनापूर्ण गतिविधियों को छुपाता है
Logic Bomb	विशिष्ट शर्तें पूरी होने पर सक्रिय होता है (जैसे, दिनांक/समय या उपयोगकर्ता क्रिया)

35. Which among the following is NOT an open source software?

निम्नलिखित में से कौन सा ओपन सोर्स सॉफ्टवेयर नहीं है?

1. Android
2. Linux
3. Microsoft Office
4. Mozilla Firefox

- Free & Open Source software (FOSS):–
  - when source code & software is freely available to public to help each other
  - Example – Ubuntu, Python, Libreoffice, Openoffice, Mozilla Firefox,etc
- Freeware:–

  software is freely available but source code is not available

  Example – Skype, Adobe Reader, etc.
- Proprietary software:–

  software purchased from vendor who has its copyright

  Example – Microsoft windows, Tally, Quickheal, etc.

36. ____ is a generic term, which refers to all the legal and regulatory aspects of Internet and the World Wide Web.

____ एक सामान्य शब्द है, जो इंटरनेट और वर्ल्ड वाइड वेब के सभी कानूनी और नियामक पहलुओं को संदर्भित करता है।

1. Hackers
2. Cookies → small text files stored on a user's device by a web browser when visiting a website
3. Tool
4. Cyber law

37. How many bytes are equal to 1 kilo byte in Binary system?

बाइनरी प्रणाली में 1 किलो बाइट कितने बाइट के बराबर होते हैं?

1. 1048 Bytes
2. 1042 Bytes
3. 1012 Bytes
4. 1024 Bytes

38. In Internet technology, what does DNS stand for?

इंटरनेट प्रौद्योगिकी में DNS का क्या अर्थ है?

1. Dynamic Name System
2. Distributed Name system
3. Divided Name System
4. Domain Name System

39. What kind of storage is RAM?

RAM किस प्रकार का भण्डारण है?

1. Primary
2. Tertiary
3. Secondary
4. Offline

RAM & ROM

storage devices – hard disk, SSD, pendrive, CD, DVD, memory chips

40. A typewriter-like tool, which is used to send data or commands to the computer is called:

टाइपराइटर जैसा उपकरण, जिसका उपयोग कंप्यूटर पर डेटा या कमांड भेजने के लिए किया जाता है, कहलाता है:

1. Joystick
2. Optical Character Reader (OCR)
3. Mouse
4. Keyboard

41. Select the option with the INCORRECT full form for the corresponding acronyms.

संबंधित परिवर्णी शब्दों के लिए गलत पूर्ण रूप वाले विकल्प का चयन करें।

1. C-DAC: Centre for Development of Advanced Computing
2. CHOGM: Commonwealth Heads of Government Ministries
3. CITES: Convention on International Trade in Endangered Species
4. CCI: Competition Commission of India

Meeting

42. What does the acronym SMPS stand for?

SMPS का संक्षिप्त रूप क्या है?

1. Switched-Mode Power Supply
2. Single-Mode Power Supply
3. Start-Mode Power Supply
4. Store-Mode Power Supply

decides power Supply

- CMOS – Complementary Metal oxide semiconductor

43. From the given options, select the developer of 'PARAM 10000', a supercomputer of Indian origin.

दिए गए विकल्पों में से भारतीय मूल के सुपर कंप्यूटर 'PARAM 10000' के डेवलपर का चयन करें।

1. Tata
2. C-DAC, Pune
3. IIT Kanpur
4. IIT-Kharagpur

44. What is Optical Distribution Network (ODN)?

ऑप्टिकल डिस्ट्रीब्यूशन नेटवर्क (ODN) क्या है?

1. The physical fibres that distribute signals to users in a telecommunications network.
2. The physical fibres that distribute signals to users in an electronic circuit.
3. The optical devices that cannot distribute signals.
4. The physical fibre and optical devices that distribute signals to users in a telecommunications network.

45. Which of the following is NOT a series of the supercomputer PARAM that was developed by Indian scientists?

निम्नलिखित में से कौन सा सुपरकंप्यूटर PARAM की श्रृंखला नहीं है जिसे भारतीय वैज्ञानिकों द्वारा विकसित किया गया था?

1. PARAM 8000
2. PARAM BRAHMA
3. PARAM 8600
4. PARAM MITRA

46. What is the full form of COBOL?

COBOL का पूर्ण रूप क्या है?

1. Computer Basic Operation Language
2. Computer Business Oriented Language
3. Common Business Organised Language
4. Common Business Oriented Language → high level language by Grace Murray Hopper

47. Which function key in Excel helps to switch to edit mode?

एक्सेल में कौन सी फ़ंक्शन कुंजी संपादन मोड में स्विच करने में मदद करती है?

1. F7 → Spell check
2. F2
3. F5 → go to dialog box
4. F3

- Active Cell -> darker outline
- Shift + f7 -> Thesaurus tool (similar words)
- Shift + f3 -> to insert a function
- Formula in MS Excel always starts with an '=' (equal to) sign.

48. _____ is a communication protocol.

_____ एक संचार प्रोटोकॉल है।

1. HTTP → Hyper Text Transfer Protocol (S–secure)
2. CP
3. HTP
4. TP

49. Which is called as brain of any computer system?

किसी भी कंप्यूटर सिस्टम का मस्तिष्क किसे कहा जाता है?

1. Monitor
2. ALU
3. CPU → Central Processing Unit
4. UPS → Uninterrupted power supply

50. What is the full form of PDF in the context of file formats?

फ़ाइल स्वरूपों के संदर्भ में पीडीएफ का पूर्ण रूप क्या है?

1. Portable Document Format
2. Prefixed Detachable Format
3. Picture Disc Format
4. Processing Digital File

51. In the context of computing, which among the following is the correct order?

कंप्यूटिंग के संदर्भ में, निम्नलिखित में से कौन सा क्रम सही है?

1. TB>GB>MB>KB
2. GB >TB>MB>KB
3. MB>GB>TB>KB
4. TB>KB>MB>GB

PARMAR SSC

52. Which of the following is an open source operating system to manage computer hardware and software?

निम्नलिखित में से कौन सा कंप्यूटर हार्डवेयर और सॉफ्टवेयर को प्रबंधित करने के लिए एक ओपन सोर्स ऑपरेटिंग सिस्टम है?

1. Macintosh
2. Microsoft Windows
3. Linux
4. Apple

53. As of May 2025, who is the CEO of Google?

मई 2025 तक गूगल का सीईओ कौन होगा?

1. Ajay Banga
2. Sundar Pichai
3. Indra Nooyi
4. Satya Nadella

54. Which of the following statements is INCORRECT?

निम्नलिखित में से कौन सा कथन गलत है?

1. The first computer in India was installed in the Indian Statistical Institute, Kolkata.
2. Vint Cerf is recognised as one of the 'Fathers of the Internet'.
3. Hotmail is the first free web-based email service introduced in 1995.
4. In internet terminology, IP means Internet Practice.

→ Internet protocol

- Father of email -> Ray Tomilson

55. What is the function of WinZip?

WinZip का कार्य क्या है?

1. It extracts smaller files from larger files.
2. It compresses large files into a smaller file.
3. It expands smaller files into a large file.
4. It is an anti-virus software.

- WinRar -> used to extract file

56. In Information Technology, what does DASD stand for?

सूचना प्रौद्योगिकी में DASD का क्या अर्थ है?

1. Direct Access Storage Domain
2. Direct Access Storage Device
3. Direct Access Standard Device
4. Device for Access and Storage of Domain

57. If Bill Gates had his way, by what name was Windows OS planned to be released?

यदि बिल गेट्स की बात मानी जाती तो विंडोज ऑपरेटिंग सिस्टम को किस नाम से जारी करने की योजना थी?

1. Clipboard Viewer
2. Interface Manager
3. Calculator
4. Control Panel

58. What was the first domain name ever registered in the World Wide Web?

वर्ल्ड वाइड वेब पर पंजीकृत पहला डोमेन नाम कौन सा था?

1. www.computer.com
2. www.linux.com
3. www.symbolics.com
4. www.server.com

59. Which among the following is the largest unit of memory?

निम्नलिखित में से स्मृति की सबसे बड़ी इकाई कौन सी है?

1. Petabyte
2. Gigabyte
3. Terabyte
4. Megabyte

60. Debugging is another term for:

डिबगिंग का दूसरा शब्द है:

1. executing
2. removing errors
3. compiling
4. not reading comments

61. The COBOL language is suitable for:

COBOL भाषा निम्नलिखित के लिए उपयुक्त है:

1. creating graphical interfaces
2. business purposes
3. scientific purposes
4. educational purposes

62. Which of the following is a single chip based device that is a complete processor in itself and is capable of performing arithmetic and logical operations?

निम्नलिखित में से कौन सा एकल चिप आधारित उपकरण है जो अपने आप में एक पूर्ण प्रोसेसर है और अंकगणितीय और तार्किक संचालन करने में सक्षम है?

1. Operating system
2. Modem
3. Microprocessor
4. Multiprocessing

63. In the context of computers, the time taken to receive data from a storage device or to obtain data from a peripheral unit is known as _____ .

कंप्यूटर के संदर्भ में, किसी स्टोरेज डिवाइस से डेटा प्राप्त करने या किसी परिधीय इकाई से डेटा प्राप्त करने में लगने वाले समय को _____ के रूप में जाना जाता है।

1. Downtime
2. Time sharing
3. Access time
4. Time slicing

64. Which one is not an e-shopping website from the following?

निम्नलिखित में से कौन सी ई-शॉपिंग वेबसाइट नहीं है?

1. www.pepperfry.com
2. www.twitter.com → 'X' now
3. www.jabong.com
4. www.flipkart.com

65. A network of computers and other devices that are confined to a relatively small space is called:

कंप्यूटरों और अन्य उपकरणों का एक नेटवर्क जो अपेक्षाकृत छोटे स्थान तक सीमित होता है, कहलाता है:

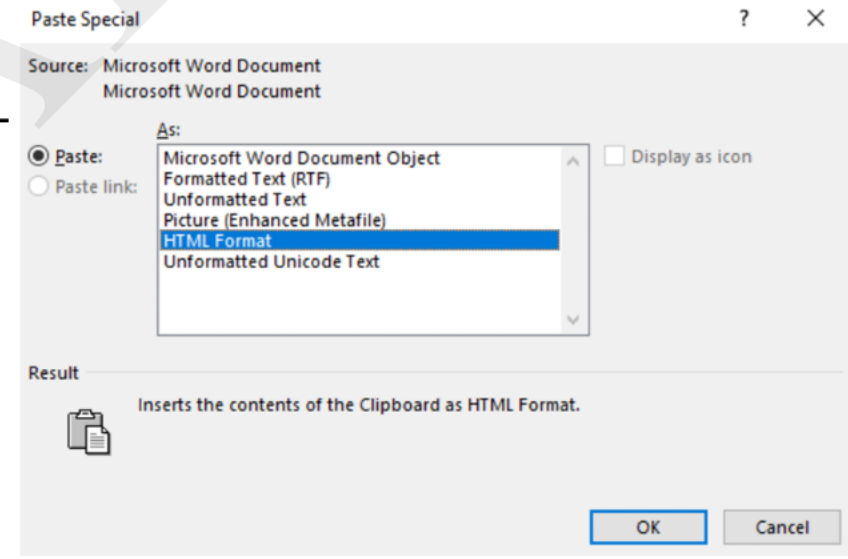
1. Local Area Network → Home, office, etc.
2. Wide Area Network
3. Peer-to-Peer Network
4. Global Network

NETWORK TYPE	FULL FORM	EXAMPLES	KEY FEATURES
PAN	Personal Area Network	Bluetooth, USB tethering, AirDrop	Covers a small area (around 10 meters), personal device connection
LAN	Local Area Network	Office network, Home Wi-Fi	High speed, low latency, limited to buildings or campuses
MAN	Metropolitan Area Network	City-wide cable networks, campus interlinks	Covers a city or large campus, medium speed, managed by telecoms or ISPs
WAN	Wide Area Network	The Internet, Bank ATM networks	Covers countries/continents, slower than LAN, uses leased telecom lines
WLAN	Wireless Local Area Network	Wi-Fi in homes, cafes	Wireless version of LAN, connects devices via routers
CAN	Campus Area Network	University campuses, Military bases	Larger than LAN, smaller than MAN; interconnects multiple LANs
SAN	Storage Area Network	Data centers, backup systems	High-speed network to connect storage devices, improves storage access
VPN	Virtual Private Network	Remote secure access to corporate networks	Creates secure connection over the internet, encrypts data
HAN	Home Area Network	Smart TVs, computers, smartphones at home	Designed for homes, combines wired and wireless technologies

66. What is the shortcut key to open 'Paste Special' dialogue box in Microsoft Word?

माइक्रोसॉफ्ट वर्ड में 'पेस्ट स्पेशल' डायलॉग बॉक्स खोलने की शॉर्टकट कुंजी क्या है?

1. Ctrl + Alt + C
2. Alt+E+S → also Ctrl + Alt + V & Alt + H + V + S
3. Ctrl + Alt + P
4. Ctrl + V → Paste



67. How many megabytes are equal to 1 gigabyte?

1 गीगाबाइट कितने मेगाबाइट के बराबर होते हैं?

1. 1048
2. 1024
3. 1052
4. 1042

68. In the field of computers and Internet, what does W3C stand for?

कंप्यूटर और इंटरनेट के क्षेत्र में W3C का क्या अर्थ है?

1. World Wide Web Consortium
2. World Wide Web Commission
3. World Wide Web Centre
4. World Wide Web Content

--	Description
Founded	1994
Founder	Tim Berners-Lee (inventor of the World Wide Web)
Headquarters	MIT (USA), ERCIM (Europe), Keio University (Japan)
Main Role	Develops web standards and protocols (HTML, CSS, XML, etc.)
Goal	Ensure long-term growth, accessibility, and interoperability of the Web

W3C

69. The National Informatics Centre (NIC) was established in:

राष्ट्रीय सूचना विज्ञान केन्द्र (एनआईसी) की स्थापना कब हुई थी?

1. 1978
2. 1979
3. 1976
4. 1977

70. Which of the following options defines Operating System?

निम्नलिखित में से कौन सा विकल्प ऑपरेटिंग सिस्टम को परिभाषित करता है?

1. It is a software that is used to convert source program instructions to set programs.
2. It is a set of programs that controls the way a computer works and runs other programs.
3. It is a set of programs used to convert high level language to low level language.
4. It is the actual way of working on computers.

71. In Excel, what shortcut key is used to fill the selected cell with active cells to the right?

एक्सेल में, चयनित सेल को दाईं ओर सक्रिय सेल से भरने के लिए किस शॉर्टकट कुंजी का उपयोग किया जाता है?

1. Ctrl + R
2. Ctrl + V
3. Ctrl + S → Save
4. Ctrl + D → to fill downside from the active cell

72. Which of the following is NOT an operating system?

निम्नलिखित में से कौन ऑपरेटिंग सिस्टम नहीं है?

1. Mac
2. Linux
3. Windows
4. Intel

73. Which of the following groups consists of only output devices?

निम्नलिखित में से किस समूह में केवल आउटपुट डिवाइस शामिल हैं?

1. Scanner, printer and monitor
2. Keyboard, printer and monitor
3. Mouse, printer and monitor
4. Plotter, printer and monitor

74. Desktop computers, laptop computers, tablets and smartphones are different types of:

डेस्कटॉप कंप्यूटर, लैपटॉप कंप्यूटर, टैबलेट और स्मार्टफोन विभिन्न प्रकार के होते हैं:

1. mainframe computers
2. super computers
3. mini computers
4. microcomputers

Type of Computer	Examples	Common Uses
Supercomputer	PARAM Siddhi, El Capitan, Fugaku	Weather forecasting, nuclear research, scientific simulations
Mainframe Computer	IBM Z Series, UNIVAC	Banking, airline reservations, government data processing
Minicomputer	PDP-11, VAX	Manufacturing, small business servers, academic departments
Microcomputer	Desktop PC, Laptop	Personal use, office work, gaming, browsing
Workstation	HP Z Series, Dell Precision	CAD, 3D modeling, video editing, software development
Server	Dell PowerEdge, HP ProLiant	Hosting websites, managing networks, file storage
Embedded System	Microcontrollers in washing machines, ATMs, smart TVs	Specific control tasks in appliances and devices
Tablet	iPad, Samsung Galaxy Tab	Reading, browsing, casual gaming, video streaming
Smartphone	iPhone, Samsung Galaxy	Communication, mobile apps, photography, social media
Hybrid Computer	ICU monitors, petrol pump systems	Combines features of analog and digital computers

75. A shared network within an organisation to provide connectivity to its staff is:

किसी संगठन के भीतर अपने कर्मचारियों को कनेक्टिविटी प्रदान करने के लिए एक साझा नेटवर्क है:

1. extranet
2. internet
3. intranet
4. telnet

- Intranet – private network used within an organization
- Extranet – an extension of the internet accessible to authorised external users
- Internet – global network connecting millions of pvt, public and academic networks
- Telnet – protocol used to access remote computers over the internet or a LAN

76. Which of the following is INCORRECT?

निम्नलिखित में से कौन सा गलत है?

1. 1MB=2^{10} KB → 1024
2. 1 GB = 2^{30} bytes
3. 1GB= 2^{20} bytes
4. 1MB=2^{23} bit

1 MB = 1024 KB × 1024 Bytes -> 2^{20} Bytes

1 Byte = 8 bit -> 2^{20} Bytes = 2^{23} bits

2^3

77. Which software is more useful for presentation in a classroom?

कक्षा में प्रस्तुतिकरण के लिए कौन सा सॉफ्टवेयर अधिक उपयोगी है?

1. Microsoft Access → database
2. Microsoft Excel → spreadsheet software
3. Microsoft Power Point
4. Microsoft Word → word processing

78. What was the base of first generation computer systems?

प्रथम पीढ़ी के कंप्यूटर सिस्टम का आधार क्या था?

1. Transistor based
2. Vacuum tube based
3. Integrated Circuit based
4. VLSI microprocessor based

- Generations of Computer:-

1. First Generation:-

   Time – 1942-45

   Hardware – Vacuum tubes

   Memory – Magnetic drums

   Language – Machine language

   Examples – EDVAC, UNIVAC, ENIAC, EDSAC

2. Second generation computers:-

   Time – 1956-64

   Hardware – Transistors

   Memory – Magnetic tapes/ cores

   Language – Assembly language, High level languages like FORTRAN, COBOL

   Examples – IBM 700/ IBM 7030

3. Third generation:-

   Time – 19665-75

   Hardware – Integrated chips

   Memory – RAM & disks

   Language – C, C++, Java, SQL

   Examples – CRAY -1, IBM 360, etc.

4. Fourth generation:-

   Time – 1976-1989

   Hardware – LSI & VLSI → Large Scale Integration
   → Very Large Scale Integration

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Memory – All primary, secondary storage devices

Language – SQL, ORACLE

Examples – All pcs & desktops etc

5. Fifth generation:–

Time – 1990 – till date

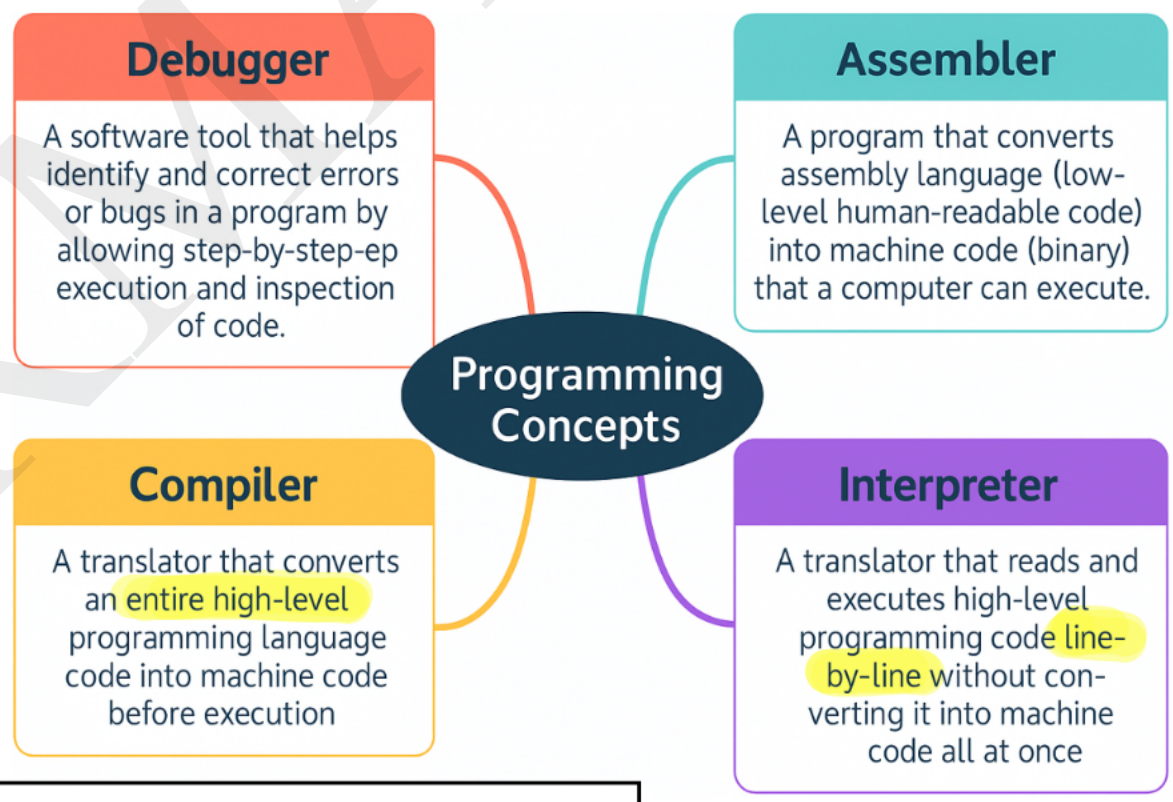
Hardware – ULSI (Ultra Large Scale Integration)

Chief Development – Artificial intelligence, Robotics & Nano science

79. A high level source program must be translated first into a form that the machine can understand. This is done using a software called the:

उच्च स्तरीय स्रोत प्रोग्राम को पहले ऐसे रूप में अनुवादित किया जाना चाहिए जिसे मशीन समझ सके। यह एक सॉफ्टवेयर का उपयोग करके किया जाता है जिसे कहा जाता है:

1. debugger
2. assembler
3. compiler
4. controller



80. The Speed of a microprocessor is known as:

माइक्रोप्रोसेसर की गति को इस रूप में जाना जाता है:

1. Cycle Speed
2. Mega Speed
3. Clock Speed
4. Bit Rate

81. Which of the following web browsers is NOT a proprietary software?

निम्नलिखित में से कौन सा वेब ब्राउज़र मालिकाना सॉफ्टवेयर नहीं है?

1. Internet Explorer
2. Mozilla Firefox → open source
3. Safari
4. Opera

82. Which of the following is NOT a type of social networking application?

निम्नलिखित में से कौन सा सोशल नेटवर्किंग एप्लीकेशन का प्रकार नहीं है?

1. Haptic
2. Twitter
3. LinkedIn
4. Facebook

83. What type of satellite is APPLE?

एप्पल किस प्रकार का उपग्रह है?

1. Earth observation satellite
2. Remote sensing satellite
3. Communication satellite
4. Meteorology satellite

84. What does BHIM stand for:

BHIM का क्या अर्थ है:

1. Bheem Intraface for Mobile
2. Bharat Internet for Money
3. Bharat Interface for Money
4. Bheem Interface for Mobile

Short Form	Full Form	Purpose / Relevance
BHIM	Bharat Interface for Money	UPI-based mobile payment app by NPCI
UPI	Unified Payments Interface	Real-time inter-bank transaction system
NPCI	National Payments Corporation of India	Organization behind UPI, IMPS, BHIM, RuPay etc.
IMPS	Immediate Payment Service	Instant fund transfer system via mobile or internet banking
NEFT	National Electronic Funds Transfer	One-to-one bank transfer (batch-processed)
RTGS	Real-Time Gross Settlement	High-value instant bank transfers (₹2 lakh and above)
QR Code *	Quick Response Code	Used for scanning and making instant payments
Aadhaar	Aadhaar Enabled Payment System (AEPS)	Banking through biometric and Aadhaar authentication
POS	Point of Sale	Device used to process card payments at stores
OTP	One-Time Password	Temporary password used for secure digital transactions
VPA *	Virtual Payment Address	UPI ID used for sending and receiving money

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85. The full form of MB is:

एमबी का पूर्ण रूप है:

1. Microbyte
2. macrobyte
3. minibyte
4. Megabyte

86. The speed of a CPU can measured in

सीपीयू की गति मापी जा सकती है

1. Horsepower
2. Bits per second (Bps)
3. Megahertz (MHz)
4. Lux

↳also Hz & GHz

87. The term 'byte' was coined by:

'बाइट' शब्द किसके द्वारा गढ़ा गया था:

1. Vint Cerf
2. Steve Jobs
3. Werner Buchholz
4. Larry Page

- Bit word coined by – John Tukey

88. The PARAM 8000 supercomputer was released in which year?

PARAM 8000 सुपरकंप्यूटर किस वर्ष जारी किया गया था?

1. 1988
2. 2003
3. 1991
4. 1996

89. With whom is the Statement of Intent (SOI) signed by NITI Aayog as part of the Atal Innovation Mission to open the Digital Disha Programme?

डिजिटल दिशा कार्यक्रम शुरू करने के लिए अटल इनोवेशन मिशन के हिस्से के रूप में नीति आयोग ने किसके साथ आशय पत्र (एसओआई) पर हस्ताक्षर किए हैं?

1. Adobe
2. Google
3. Microsoft
4. Facebook

90. In the e-mail address India@solu.edu, India is the:

ई-मेल पता India@solu.edu में भारत है:

1. User name
2. Password
3. Domain name
4. Server name

- Email address –> username @ domain name

91. Which one of the following software applications is NOT a part of Microsoft Office?

निम्नलिखित में से कौन सा सॉफ्टवेयर अनुप्रयोग माइक्रोसॉफ्ट ऑफिस का हिस्सा नहीं है?

1. Excel
2. Word
3. Acrobat Reader
4. PowerPoint

- Microsoft office:–

Excel, Word, Powerpoint, Access, One Note, Outlook, Publisher

92. Real-time video chatting uses the following internet application:

वास्तविक समय वीडियो चैटिंग निम्नलिखित इंटरनेट एप्लिकेशन का उपयोग करती है:

1. Internet Publish Chat (IPC)
2. Internet Broadcast Chat (IBC)
3. Internet Transfer Chat (ITC)
4. Internet Relay Chat (IRC)

93. Which function key is used to change the name of a specific file?

किसी विशिष्ट फ़ाइल का नाम बदलने के लिए किस फ़ंक्शन कुंजी का उपयोग किया जाता है?

1. ALT + S
2. F4
3. CTRL+E
4. F2 → to rename a file

- In MS Word:–

Ctrl + L – Left alignment

Ctrl + E – Center alignment

Ctrl + R – Right alignment

Ctrl + J – Justify

- Windows key (#) + E –> opens file explorer
- Windows key (#) + R –> opens Run Dialogue box

94. What does ASCII stand for?

ASCII का क्या अर्थ है?

1. Asian Schema Code for Information Interchange
2. Asian Standard Code for Internet Interchange
3. American Standard Code for Information Interchange
4. American Standard Code for Internet Information

95. The full form of BIOS is:

BIOS का पूर्ण रूप है:

1. Browser Input Operating System
2. Basic Input/Output System
3. Basic Input Operating System
4. Browser Input/Output System

96. 100 nibbles are equal to ____ bits.

100 निबल्स ___ बिट्स के बराबर हैं।

1. 256
2. 400 → 1 Nibble = 4 bits
3. 512
4. 200

97. If you are using Ctrl + A keys in MS Word, what are you trying to do?

यदि आप MS Word में Ctrl + A कुंजियों का उपयोग कर रहे हैं, तो आप क्या करने का प्रयास कर रहे हैं?

1. Close the window
2. Copy all text in the file
3. Paste text
4. Select all text in the file

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98. Where is the cache memory located?

कैश मेमोरी कहां स्थित है?

1. CPU
2. RAM
3. CU
4. monitor

99. The cell with dark boundary in _____ is called active cell.

_____ में अँधेरी सीमा वाली कोशिका को सक्रिय कोशिका कहा जाता है।

1. MS Excel
2. MS PowerPoint
3. MS DOS
4. MS Word

100 Who among the following is one of the founders of Google?

निम्नलिखित में से कौन गूगल के संस्थापकों में से एक है?

1. Jon Koum
2. Larry Page
3. Jerry Yang
4. Mark Zuckerberg

101 Which one of the following is not a hardware component of a computer?

निम्नलिखित में से कौन सा कंप्यूटर का हार्डवेयर घटक नहीं है?

1. Printer
2. Keyboard
3. Memory
4. Mouse

102 Which one of the following statements is correct about a computer?

कंप्यूटर के बारे में निम्नलिखित में से कौन सा कथन सही है?

1. An electronic device that stores, retrieves and processes data.
2. A computer is composed of only hardware.
3. A computer is composed of only software.
4. A computer can organise all information on its own.

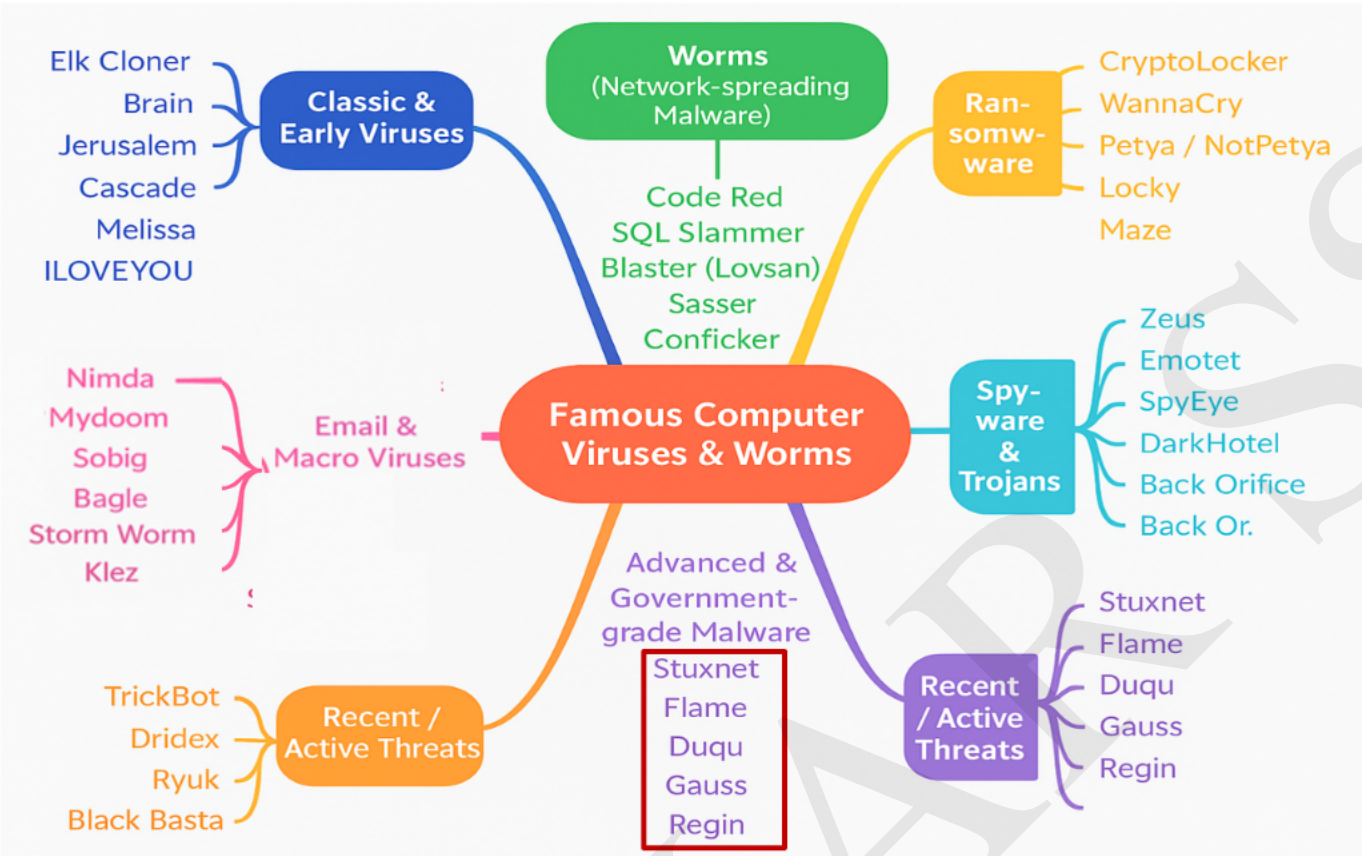
103 Which one of the following is not a computer virus but is, basically, a computer language?

निम्नलिखित में से कौन सा एक कंप्यूटर वायरस नहीं है, लेकिन मूलतः एक कंप्यूटर भाषा है?

1.Python

2. Conficker
3. Code Red
4. Sasser

→ computer virus



104 Four items connected with computers are listed, out of which three are alike in some manner and one is different.

Select the odd one.

कंप्यूटर से जुड़ी चार वस्तुएँ सूचीबद्ध हैं, जिनमें से तीन किसी न किसी तरह से समान हैं और एक अलग है। विषम को चुनें।

1. Flash Drive
2. CD

→ Storage device

3. Monitor

→ output device

4. Hard disk

105 Who designed the 'first' small computer for home use?

घरेलू उपयोग के लिए 'पहला' छोटा कंप्यूटर किसने डिजाइन किया?

1. Steve Wozniak
2. Chuck Peddl
3. Steve Leininger
4. John Blankenbaker

- first computer virus –> Creeper virus

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106 IBM 370 was a ___ generation computer.

आईबीएम 370 एक ___ पीढ़ी का कंप्यूटर था।

1. 3rd
2. 2nd
3. 1st
4. 4th

107 Which among the following is NOT an extension for a video file?

निम्नलिखित में से कौन सा वीडियो फ़ाइल का एक्सटेंशन नहीं है?

1. .avi
2. .mov
3. .jpeg → image extension
4. .mp4

108 Which one of the following is called a super - network or meta - network?

निम्नलिखित में से किसे सुपर-नेटवर्क या मेटा-नेटवर्क कहा जाता है?

1. MAN
2. LAN
3. Internet
4. Server

109 Which one of the following is NOT an Office Package ?

निम्नलिखित में से कौन सा एक ऑफिस पैकेज नहीं है?

1. WPS
2. Microsoft office 2010
3. Libre
4. Quantum

110 Google Drive, Sky Drive and Dropbox are perfect examples of:

गूगल ड्राइव, स्काई ड्राइव और ड्रॉपबॉक्स इनके आदर्श उदाहरण हैं:

1. internet computing
2. virtual drives
3. virtual reality
4. cloud storage services

- Cloud Storage Services:–

  Dropbox, Google Drive, OneDrive, Amazon S3

111 What is the correct full form of "VIRUS" in computer programming?

कंप्यूटर प्रोग्रामिंग में "VIRUS" का सही पूर्ण रूप क्या है?

1. Vital Inter Change Result Until Source
2. Vital Information Resources Under Seize
3. Vital Information Recognize Search
4. Vital Information Record User Seize

112 Which of the following is NOT a computer programming language?

निम्नलिखित में से कौन सी कंप्यूटर प्रोग्रामिंग भाषा नहीं है?

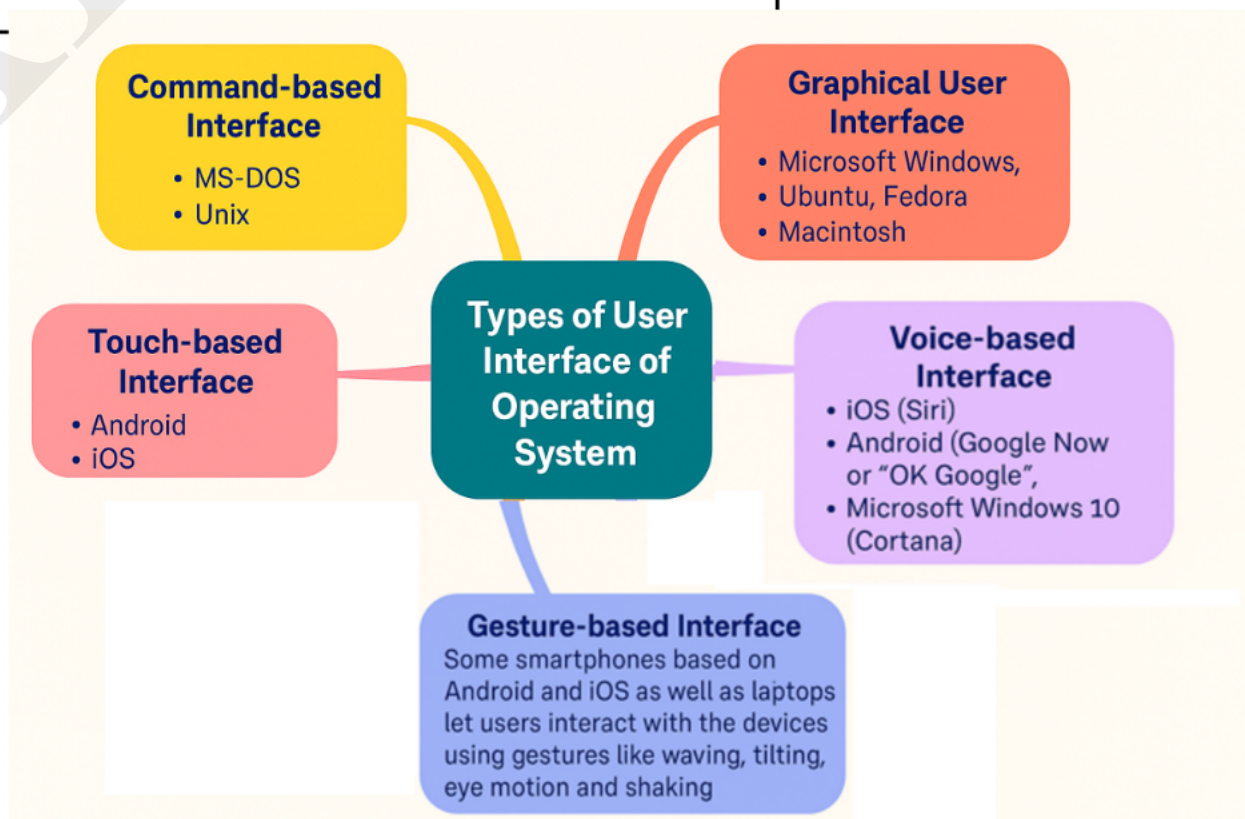
1.Python
2. Java
3. C++++
4. Swift

113 MS DOS is an operating system that has a /an:

एमएस डॉस एक ऑपरेटिंग सिस्टम है जिसमें /an है:

1. Command Line Interface
2. Voice Line Interface
3. Open Source Origin
4. Graphical User Interface

Microsoft Disc Operating system



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114 Which was the first social media site?

पहली सोशल मीडिया साइट कौन सी थी?

1. LinkedIn
2. Six Degrees
3. Myspace
4. Friendster

115 As of March 2025, name the head of Instagram who oversees all functions of the business including engineering, production and operations.

मार्च 2025 तक, इंस्टाग्राम के उस प्रमुख का नाम बताएं जो इंजीनियरिंग, उत्पादन और संचालन सहित व्यवसाय के सभी कार्यों की देखरेख करेगा।

1. Steve Wozniak
2. Ronald Wayne.
3. Adam Mosseri
4. Mark Zuckerberg

116 What is the full form of DPI with regard to digital images?

डिजिटल छवियों के संबंध में DPI का पूर्ण रूप क्या है?

1. Data per inch
2. Dots per inch
3. Decimal per inch
4. Digits per inch

- Basic unit of Image – Pixel

117 What are the peripheral devices?

परिधीय उपकरण क्या हैं?

1. These devices help in storing and analysing data.
2. Those that help in calculation.
3. These are internal or external device that connect directly to a computer but do not contribute to the computer's primary functions.
4. Those that connect computer to the internet.

118 Which of the following is an advantage of LAN?

निम्नलिखित में से कौन सा LAN का लाभ है?

1. sharing peripherals
2. saving all data
3. backing up data
4. automatic pricing of data

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119 In Microsoft Word 2016, what happens when we press the keyboard shortcut 'Ctrl + E'?

माइक्रोसॉफ्ट वर्ड 2016 में, जब हम कीबोर्ड शॉर्टकट 'Ctrl + E' दबाते हैं तो क्या होता है?

1. Selected text is made bold
2. A pop-up prompts you to open a new file
3. Selected text is cut
4. Selected text is centre aligned

- Left alignment ->
- Right alignment ->
- Center alignment ->
- Justify ->

120 Which of the following devices/interfaces did Douglas Engelbart invent?

निम्नलिखित में से किस उपकरण/इंटरफ़ेस का आविष्कार डगलस एंजेलबार्ट ने किया था?

1. Compact disc
2. USB port
3. Floppy disk
4. Computer mouse

121 Non-volatile memory is a type of computer memory that can retain stored information even when the computer is:

नॉन-वोलेटाइल मेमोरी एक प्रकार की कंप्यूटर मेमोरी है जो कंप्यूटर के चालू रहने पर भी संग्रहीत जानकारी को बनाए रख सकती है:

1. intermittently powered
2. not processed
3. powered
4. not powered

ROM & other Storage devices

- Volatile memory -> needs power to retain memory

  Example - RAM

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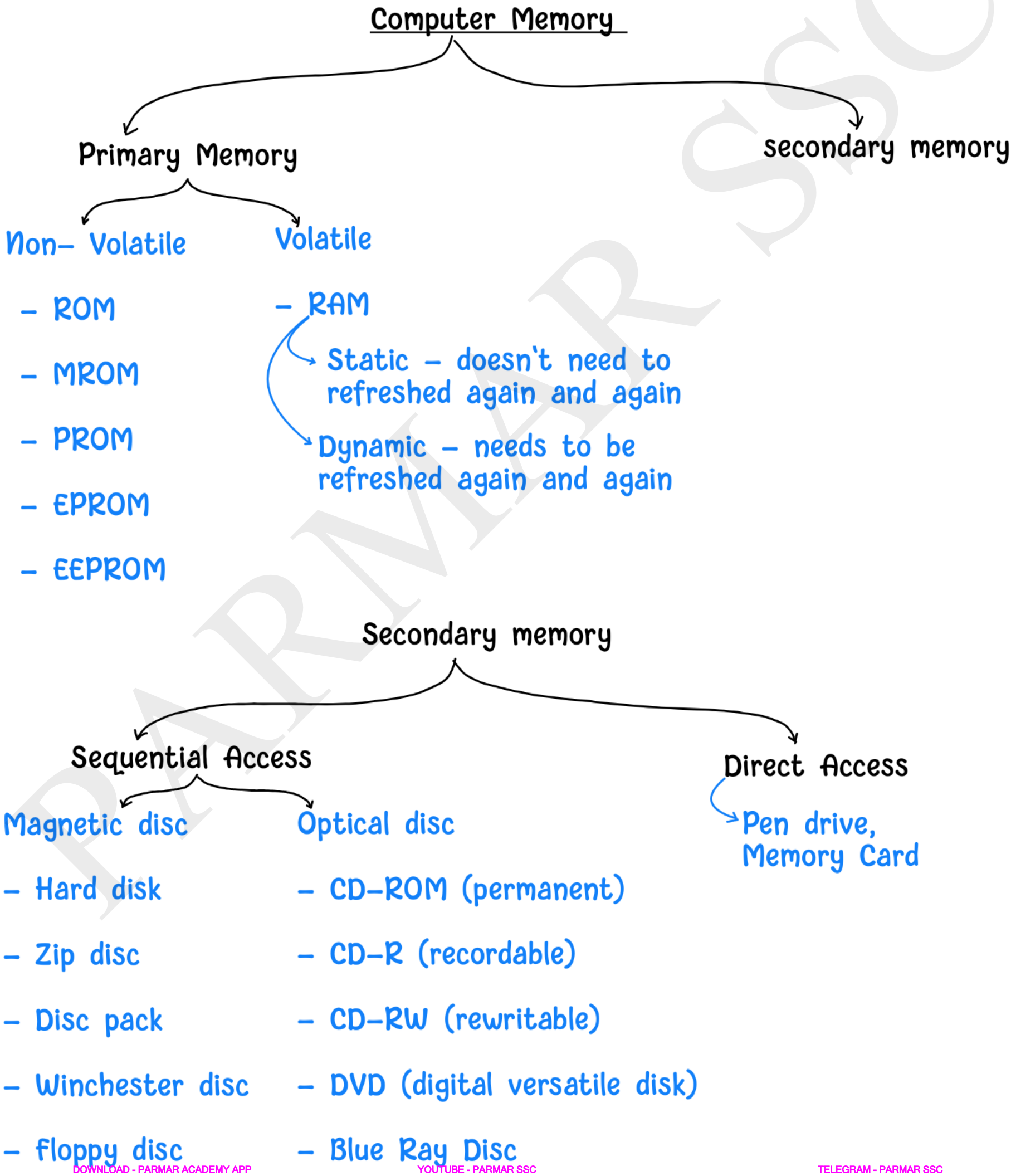
122 Which of the following is a volatile memory?

निम्नलिखित में से कौन सी अस्थिर मेमोरी है?

1. RAM
2. PROM
3. EPROM
4. ROM



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123 In Computer terminology, what is the full form of IDN?

कम्प्यूटर शब्दावली में IDN का पूर्ण रूप क्या है?

1. Internal Digital Networks
2. Internationalized Domain Name
3. Input Distributed Networks
4. Intertwined Disc Networks

124 Which of the following is the system designed to prevent unauthorised access to or from a private network?

निम्नलिखित में से कौन सी प्रणाली निजी नेटवर्क पर अनाधिकृत पहुंच को रोकने के लिए डिज़ाइन की गई है?

1. Repeater → used to boost signal strength
2. Packet filter
3. Bridge → connects different LANs
4. Firewall → in both hardware & Software forms

125 Which of the following is a graphical web browser based on the WebKit browser engine?

निम्नलिखित में से कौन सा वेबकिट ब्राउज़र इंजन पर आधारित एक ग्राफिकल वेब ब्राउज़र है?

1. Appy Pie Design
2. Adobe Illustrator
3. Safari
4. CorelDRAW

126 A group of four bits is called a:

चार बिट्स के समूह को कहा जाता है:

1. megabyte
2. nibble
3. byte
4. kilobyte

127 Which of the following is NOT an internal part of the computer?

निम्नलिखित में से कौन सा कंप्यूटर का आंतरिक भाग नहीं है?

1. RAM
2. Flash drive
3. Video card
4. Motherboard

Component	Description
Motherboard	The main circuit board that connects all components
CPU (Processor)	Central Processing Unit – the "brain" that processes all instructions
RAM (Memory)	Temporary memory used by the system to run programs and processes
Hard Drive / SSD	Stores data, software, operating system, and files
Power Supply Unit (PSU)	Converts electricity to power all components
GPU (Graphics Card)	Renders images, videos, and animations (especially for gaming/design)
Optical Drive	Reads/writes data to CDs, DVDs (optional in modern PCs)
Cooling Fan / Heat Sink	Keeps the CPU and GPU from overheating
BIOS / CMOS Chip	Stores firmware used to start the system and manage basic settings
Expansion Slots (PCIe)	Allows additional cards like sound cards, network cards, etc.
Cables & Connectors	Connect internal components (e.g., SATA, power cables)
Internal Speaker	Gives basic system beeps (POST beeps)

Internal parts of a computer

128 Operating system of a computer is an example of:

कंप्यूटर का ऑपरेटिंग सिस्टम इसका एक उदाहरण है:

1. Application software
2. System software
3. Hardware
4. Application platform

129 What is URL? → Uniform Resource Locator

यूआरएल क्या है?

1. A web browser
2. Searching engine
3. Address of the web page displayed on the internet
4. A computer software

130 Which part of a CPU coordinates all the functions of a computer?

सीपीयू का कौन सा भाग कंप्यूटर के सभी कार्यों का समन्वय करता है?

1. Motherboard
2. Keyboard
3. Control unit
4. Mouse

131 In Computer terminology, ALU stands for:

कंप्यूटर शब्दावली में, ALU का अर्थ है:

1. Arithmetic Logic Unit
2. Active Load Unit
3. Air Lock Unit
4. Application Logical Unit

132 A/an is required for booting a computer.

कंप्यूटर को बूट करने के लिए A/an की आवश्यकता होती है।

1. Compiler
2. Assembler
3. Operating system
4. Translator

133 In Microsoft Word 2016, to remove paragraph formatting, one must press the shortcut keys.

माइक्रोसॉफ्ट वर्ड 2016 में पैराग्राफ़ फ़ॉर्मेटिंग हटाने के लिए, शॉर्टकट कुंजियाँ दबानी होंगी।

1. Ctrl + M → to indent a paragraph
2. Ctrl + Q
3. Ctrl + J
4. Ctrl + Y → Redo

• Ctrl + Z – Undo

134 The main page of a website or a browser is called:

किसी वेबसाइट या ब्राउज़र के मुख्य पृष्ठ को क्या कहा जाता है:

1. Master page
2. Home page
3. Grand page
4. First page

135 The process of taking out stored results out of physical memory of Computers is known as:

कंप्यूटर की भौतिक मेमोरी से संग्रहीत परिणामों को बाहर निकालने की प्रक्रिया को क्या कहा जाता है?

1. input process
2. processing
3. programming
4. output process

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136 Which of the following is NOT a part of auxiliary memories in a Computer system?

निम्नलिखित में से कौन सा कंप्यूटर सिस्टम में सहायक मेमोरी का हिस्सा नहीं है?

1. Floppy
2. Magnetic tapes
3. PROM
4. CD-ROM

secondary memory

137 What does NIU stand for in information technology?

सूचना प्रौद्योगिकी में NIU का क्या अर्थ है?

1. Network Interface Unit
2. Networking Internal Unit
3. National Information Usage
4. Nominal Internal Unit

138 What is 'UBUNTU'?

'उबंटू' क्या है?

1. Operating system
2. Malware
3. External hard drive
4. Web Browser

139 In the domain of computers and the internet, what is the full form of URL?

कंप्यूटर और इंटरनेट के क्षेत्र में URL का पूर्ण रूप क्या है?

1. Unique Resource Location
2. Unique Revoked Location
3. Uniform Resource Locator
4. Universal Resource Locator

140 Which of the following is NOT a Google product?

निम्नलिखित में से कौन सा गूगल उत्पाद नहीं है?

1. Gmail
2. iTunes → apple
3. Blogger
4. YouTube

141 Which of the following is an incorrect pair of abbreviation and its full form?

निम्नलिखित में से कौन सा संक्षिप्त नाम और उसके पूर्ण रूप का गलत जोड़ा है?

A. DBMS – Data Base Management System
B. URL – Uniform Reserve Locator
C. RAM – Random Access Memory
D. FAX – Facsimile

142. ESS is a computer-based system that allows users to transform enterprise data.
ESS stands for:

ईएसएस एक कंप्यूटर-आधारित प्रणाली है जो उपयोगकर्ताओं को एंटरप्राइज़ डेटा कं बदलने की अनुमति देती है। ईएसएस का मतलब है:

A. Executive Support System
B. Executive Series System
C. Executive Senior System
D. Executive Service System

143. A computer monitor is also known by the name:

कंप्यूटर मॉनिटर को इस नाम से भी जाना जाता है:

A. CCTV → Closed circuit telivision
B. LED → Light emitting diode
C. CPU
D. VDU

- Types of monitors:-

- CRT – Cathode Ray tube

- TFT – Thin film Transistor

- LCD – Liquid Crystal Display

144. What are the shortcut keys to paste the copied text?

कॉपी किये गये टेक्स्ट को पेस्ट करने के लिए शॉर्टकट कुंजियाँ क्या हैं?

A. Ctrl + C → Copy
B. Ctrl + X → Cut
C. Ctrl + V → or Shift + Insert
D. Ctrl + P → Paste

145. Four words have been given, out of which three are alike in some manner and one is different. Select the odd one.
Hard disk, RAM, Mouse, Motherboard.

चार शब्द दिए गए हैं, जिनमें से तीन किसी तरह से समान हैं और एक अलग है। बेजोड़ का चयन करें।
हार्ड डिस्क, रैम, माउस, मदरबोर्ड।

A. Hard disk
B. Motherboard
C. RAM
→ internal parts
D. Mouse → Peripheral device

146. In the context of computing, a 'spider' is a/an:

कंप्यूटिंग के संदर्भ में, 'स्पाइडर' एक है:

A. search engine
B. application for viewing websites
C. program that catalogues websites
D. hacker who breaks into a corporate computer system

147. Which of the following keyboard shortcuts will you use to switch to a previously opened program?

पहले से खोले गए प्रोग्राम पर स्विच करने के लिए आप निम्नलिखित में से किस कीबोर्ड शॉर्टकट का उपयोग करेंगे?

A. Ctrl + Home → Move to document starting
B. Alt + Shift + Tab
C. Alt+Tab → Switch to forward/ next open program
D. Ctrl + N → To open new document

148. What is the correct full form of MPEG from below?

नीचे दिए गए MPEG का सही पूर्ण रूप क्या है?

A. Micro Pictures Expert Group
B. Many Pictures Expert Group
C. Moving Picture Experts Group
D. Motion Pictures Expert Group

149. Which among the following is the largest unit of memory of a computer system?

निम्नलिखित में से कौन सी कंप्यूटर सिस्टम की मेमोरी की सबसे बड़ी इकाई है?

A. Exabyte
B. Yottabyte
C. Petabyte
D. Zetabyte

150. Which of the following is NOT an output device for a computer?

निम्नलिखित में से कौन सा कंप्यूटर के लिए आउटपुट डिवाइस नहीं है?

A. Printer
B. Scanner
C. Projector
D. Monitor

151. What is the full form of RDRAM?

आरडीआरएएम का पूर्ण रूप क्या है?

A. Rambus Dynamic Random Access Memory
B. Read Disc Random Access Memory
C. Read Dynamic Random Arrays Material
D. Removable Disc Read Access Module

152. What is a Visual Display Unit (VDU)?

विज़ुअल डिस्प्ले यूनिट (VDU) क्या है?

A. Storage unit
B. Monitor
C. Server
D. System memory

153. What is the full form of DOS?

डॉस का पूर्ण रूप क्या है?

A. Device Outsourcing System
B. Device Operating System
C. Different Operating System
D. Disk Operating System

154. Which technology is used to provide high speed internet access over traditional modem lines?

पारंपरिक मॉडेम लाइनों पर उच्च गति इंटरनेट पहुंच प्रदान करने के लिए किस प्रौद्योगिकी का उपयोग किया जाता है?

A. ADSL → Asymmetrical Digital Subscriber line
B. VDU
C. LAN
D. Routers

155. Which of these is NOT a computer characteristic?

इनमें से कौन सी कंप्यूटर विशेषता नहीं है?

A. Intelligence quotient
B. Data storage
C. Speed
D. Accuracy

Characteristic	Description
Speed	Can perform millions of instructions per second
Accuracy	Delivers error-free results if input is correct
Automation	Can perform tasks automatically without user intervention
Diligence	Doesn't suffer from fatigue or boredom; works continuously
Versatility	Can perform a wide range of tasks – calculations, editing, designing, etc.
Multitasking	Can run multiple applications at the same time
Storage	Stores large amounts of data and instructions for long periods
Communication	Enables digital communication via internet, email, networks
No IQ	Performs only as instructed; lacks decision-making ability
Reliability	Operates consistently over time with minimal failure
Memory	Remembers data, programs, and results even after the task is over

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विशेषता	विवरण
गति	प्रति सेकंड लाखों निर्देशों का पालन कर सकता है
सटीकता	यदि इनपुट सही है तो त्रुटि-रहित परिणाम देता है
स्वचालन	उपयोगकर्ता के हस्तक्षेप के बिना स्वचालित रूप से कार्य कर सकता है
परिश्रम	थकान या ऊब से ग्रस्त नहीं होता; लगातार काम करता है
बहुमुखी प्रतिभा	कई तरह के कार्य कर सकता है - गणना, संपादन, डिजाइनिंग, आदि।
मल्टीटास्किंग	एक ही समय में कई एप्लिकेशन चला सकता है
भंडारण	लंबी अवधि के लिए बड़ी मात्रा में डेटा और निर्देश संग्रहीत करता है
संचार	इंटरनेट, ईमेल, नेटवर्क के माध्यम से डिजिटल संचार सक्षम करता है
कोई IQ नहीं	केवल निर्देशानुसार कार्य करता है; निर्णय लेने की क्षमता का अभाव है
विश्वसनीयता	न्यूनतम विफलता के साथ समय के साथ लगातार संचालित होता है
स्मृति	कार्य समाप्त होने के बाद भी डेटा, प्रोग्राम और परिणाम याद रखता है

156. In Computer field, What does LIFO stand for?

कम्प्यूटर क्षेत्र में LIFO का क्या अर्थ है?

A. Last-In-First-Out
B. Left-In-First-Out
C. Last-In-Finish-Out
D. Lost-In-First-Out

- fIFO – first in first out

157. GPRS stands for:

जीपीआरएस का तात्पर्य है:

A. Guiding Packet Radio Systems
B. General Popular Radio Systems
C. General Packet Radio Services
D. General Payment Radio Services

158. What does CDMA stand for?

सीडीएमए का क्या अर्थ है?

A. Code Division Maximum Access
B. Code Division Multiple Access
C. Core Division Multiple Access
D. Core Division Maximum Access

159. Which is not a web browser from the following?

निम्नलिखित में से कौन सा वेब ब्राउज़र नहीं है?

A. Opera
B. Mozilla Firefox
C. Google → search engine
D. Safari

- List of web browsers:–

Mosaic, Netscape Navigator, Internet explorer, Lynx, Mozilla firefox, Chrome (google), Microsoft Edge, Safari, Opera, Sea Monkey , Maxathon, Vivaldi, Tor, Dooble, Brave, Amaya, UC Browser

160. Which of the following is an example of a spreadsheet?

निम्नलिखित में से कौन स्प्रेडशीट का उदाहरण है?

A. Microsoft Outlook
B. Microsoft Power Point
C. Microsoft Excel
D. Microsoft Word

161. SAGA-220 was developed by Indian Space Research Organization. What is SAGA-220?

SAGA-220 को भारतीय अंतरिक्ष अनुसंधान संगठन द्वारा विकसित किया गया था। SAGA-220 क्या है?

A. Pacemaker
B. Satellite
C. Super Computer
D. Missile

162. What facilitates remote login on a computer?

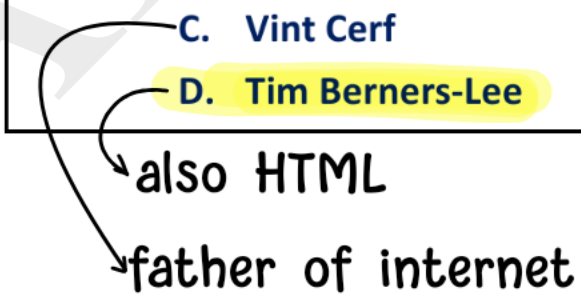
कंप्यूटर पर दूरस्थ लॉगिन की सुविधा क्या है?

A. HTTP
B. Telnet
C. FTP
D. RTP

163. Who invented 'www'?

'www' का आविष्कार किसने किया?

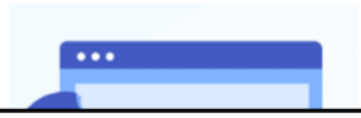
A. Robert E. Kahn
B. Charles babbage
C. Vint Cerf
D. Tim Berners-Lee



164. A small text file created by a website that is stored in the user's computer temporarily for that session is called

किसी वेबसाइट द्वारा बनाई गई एक छोटी टेक्स्ट फ़ाइल जो उस सत्र के लिए अस्थायी रूप से उपयोगकर्ता के कंप्यूटर में संग्रहीत होती है, कहलाती है

A. cache
B. bug
C. malware
D. Cookie



165. In which generation of computers were FORTRAN and COBOL languages first used?

फोरट्रान और कोबोल भाषाओं का प्रयोग सर्वप्रथम किस पीढ़ी के कम्प्यूटरों में किया गया था?

A. II Generation
B. I Generation
C. V Generation
D. IV Generation

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166. Which of the following is NOT a type of personal computer?

निम्नलिखित में से कौन सा पर्सनल कंप्यूटर का प्रकार नहीं है?

A. Mainframe computer
B. Palmtop computer
C. Laptop
D. Desktop computer

167. Video Graphics Array (VGA) is a system for displaying colour graphics. It was developed by:

वीडियो ग्राफ़िक्स ऐरे (VGA) रंगीन ग्राफ़िक्स प्रदर्शित करने की एक प्रणाली है। इसे किसने विकसित किया:

A. IBM → international business machines
B. Macintosh
C. Microsoft
D. Apple

168. Which of the following is not a high-level language?

निम्नलिखित में से कौन सी उच्च स्तरीय भाषा नहीं है?

A. C++
B. Machine language
C. Java
D. C

- BASIC – Beginners All Purpose Symbolic Instructions code
- ALGOL – Arithmetic language

169. Data processing doesn't involve:

डेटा प्रोसेसिंग में निम्नलिखित शामिल नहीं है:

A. Data manipulation
B. Data computation
C. Information management
D. Database installation

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170. The trial test of a computer or software before the commercial launch is called:

व्यावसायिक लॉन्च से पहले कंप्यूटर या सॉफ्टवेयर के परीक्षण को क्या कहा जाता है?

A. Alpha test
B. Beta test
C. Delta test
D. e-test

done internally by developers & Quality Analysis team before public release, 1st phase of testing

to remove bugs

171. What is the full form of VR in computer technology?

कंप्यूटर प्रौद्योगिकी में वी.आर. का पूर्ण रूप क्या है?

A. Virtual Reality
B. Visual Reality
C. Vocal Resonance
D. Visual Range

172. What were the names of Facebook's artificial intelligence robots that were shut down?

फेसबुक के उन कृत्रिम बुद्धिमत्ता रोबोटों के नाम क्या थे जिन्हें बंद कर दिया गया?

A. Cortana and Watson
B. Tom and Mary
C. Alexa and Siri
D. Bob and Alice

173. Who is the co-founder of Apple Computers?

एपल कंप्यूटर्स के सह-संस्थरपक कौन हैं?

A. Bill Gates
B. Paul Allen
C. Charles
D. Steve Jobs

174. Which of the following companies stopped making personal computers in 2005?

निम्नलिखित में से किस कंपनी ने 2005 में पर्सनल कंप्यूटर बनाना बंद कर दिया?

A. Asus
B. IBM
C. Dell
D. Acer

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175. Which type of computer application software is Quattro Pro?

क्वाट्रो प्रो किस प्रकार का कंप्यूटर अनुप्रयोग सॉफ्टवेयर है?

A. Spreadsheet software
B. Database software
C. Desktop publishing software
D. Word processing software

176. In a web address, the domain indicator (suffix) '.com' stands for:

वेब पते में, डोमेन सूचक (प्रत्यय) '.com' का अर्थ है:

A. computer
B. communication
C. common
D. commercial

- Important suffix:-

.edu – education

.org – organisation

.gov – government

.mil – military

.info – informative

.biz – business related

177. Which of the following languages does a computer use to process data?

कंप्यूटर डेटा को प्रोसेस करने के लिए निम्नलिखित में से किस भाषा का उपयोग करता है?

A. BASIC
B. COBOL
C. Windows
D. Binary

178. The is a simple query language used for accessing, handling and managing data in a relational database.

यह एक सरल क्वेरी भाषा है जिसका उपयोग रिलेशनल डेटाबेस में डेटा तक पहुंचने, उसे संभालने और प्रबंधित करने के लिए किया जाता है।

A. DML
B. ISO
C. SQL → Structured Query Language
D. DDL

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179. The C++ programming language was developed at AT & T Bell Laboratories in the early by Bjarne Stroustrup.

सी++ प्रोग्रामिंग भाषा का विकास एटी एंड टी बेल प्रयोगशालाओं में बजरने स्ट्रॉस्ट्रप द्वारा किया गया था।

A. 1980s
B. 1990s
C. 1960s
D. 1970s

180. In Computers, files when deleted are moved to:

कंप्यूटर में, हटाई गई फ़ाइलें निम्न स्थानों पर स्थानांतरित की जाती हैं:

A. Outbox
B. My documents
C. Recycle Bin → can be restored from it
D. Inbox

181. Internet uses:

इंटरनेट का उपयोग:

A. telephone switching
B. circuit switching
C. packet switching → information flow in form of packets
D. telex switching

- To delete a file permanently – Shift + delete

182. A domain name is a unique name given to each website on the internet. The last part of the domain name is known as a domain extension. Which of the following is a domain extension of any government website?

डोमेन नाम इंटरनेट पर प्रत्येक वेबसाइट को दिया गया एक अनूठा नाम है। डोमेन नाम के अंतिम भाग को डोमेन एक्सटेंशन के रूप में जाना जाता है। निम्नलिखित में से कौन सा किसी सरकारी वेबसाइट का डोमेन एक्सटेंशन है?

A. .net
B. .mil
C. .gov
D. .com

183. Which one of the following is NOT a web browser?

निम्नलिखित में से कौन सा एक वेब ब्राउज़र नहीं है?

A. Google Chrome
B. Wikipedia
C. Mozilla Firefox
D. Opera

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184. The internet works by using a protocol called TCP/IP. What is the full form of TCP/IP?

इंटरनेट TCP/IP नामक प्रोटोकॉल का उपयोग करके काम करता है। TCP/IP का पूरा नाम क्या है?

A. Transmission Computer Programme/Internet Protocol
B. Temporary Computer Protocol/Internet Protocol
C. Tele Computer Protocol/Internet Protocol
D. Transmission Control Protocol/Internet Protocol

185. Which one of the following determines how different programs exchange data over the internet?

निम्नलिखित में से कौन सा यह निर्धारित करता है कि विभिन्न प्रोग्राम इंटरनेट पर डेटा का आदान-प्रदान कैसे करते हैं?

A. Bluetooth
B. Email
C. URL
D. Hypertext transfer protocol

186. Which one of the following is NOT a search engine?

निम्नलिखित में से कौन सा एक खोज इंजन नहीं है?

A. Instagram
B. Google
C. Yahoo
D. Bing

- List of Search engines :–

Yahoo, Alta Vista, Hot bot, Web crawler, Excite, Lycos, Magellan, Google, Bing, Info seek, Duck duck go, Baidu, Yandex, Ask.com, Internet archive

187. Which one of the following is NOT a wired broadband?

निम्नलिखित में से कौन सा एक वायर्ड ब्रॉडबैंड नहीं है?

A. Cable
B. Digital Subscriber Line
C. Satellite
D. Dial-up

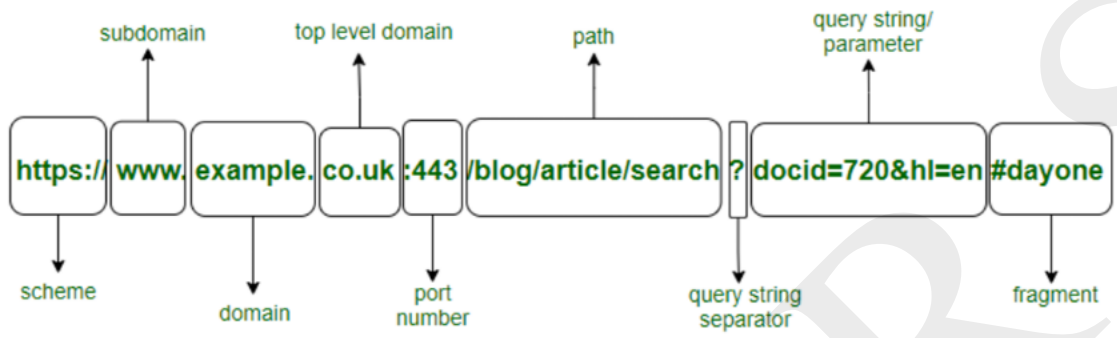
188. In the URL, https://www.d2h.com/login.php, which component identifies the path of a web page?

URL, https://www.d2h.com/login.php में, कौन सा घटक वेब पेज के पथ की पहचान करता है?

A. www.d2h.com
B. https:
C. //www
D. /login.php

Parts of a URL

URL : https://www.example.co.uk:443/blog/article/search?docid=720&hl=en#dayone



189. Which one of these is the parent company of Google?

इनमें से कौन गूगल की मूल कंपनी है?

A. Alphabet Inc.
B. Calico
C. Nest Labs
D. GV

190. What is the full form of DDL in terms of computer jargon?

कंप्यूटर शब्दावली में DDL का पूर्ण रूप क्या है?

A. Data Definition Language
B. Digital Data Logic
C. Dynamic Data Language
D. Direct Data Language

191. What are the three constituents of CPU in a computer?

कंप्यूटर में सीपीयू के तीन घटक क्या हैं?

A. Control unit, ALU, keyboard
B. Control unit, ALU, memory
C. Monitor, memory, control unit
D. Monitor, ALU, memory

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192. Mac is a type of personal computer made by:

मैक एक प्रकार का पर्सनल कंप्यूटर है जो निम्नलिखित द्वारा बनाया गया है:

A. Apple
B. Dell
C. Acer
D. HP

193. ___refers to unsolicited commercial emails that flood the Internet.

___ का तात्पर्य उन अवांछित वाणिज्यिक ई-मेल से है जो इंटरनेट पर बहुतायत में आते हैं।

A. Spyware
B. Trojan Horse
C. Malware
D. Spam

194. Who invented HTML in 1990?

1990 में HTML का आविष्कार किसने किया?

A. Tim Berners-Lee
B. David Noble
C. Kane Kramer
D. Niklaus Wirth

195. A hard disk is an example of which type of data storage device?

हार्ड डिस्क किस प्रकार के डेटा भंडारण उपकरण का उदाहरण है?

A. Tertiary storage
B. Primary storage
C. Secondary storage
D. Off-line storage

196. A modem is connected to a:

एक मॉडेम किससे जुड़ा होता है:

A. mouse
B. monitor
C. phone line
D. mother board

modulator demodulator

Digital to Analogue and vice versa

197. Trojan Horse is a form of:

ट्रोजन हॉर्स इसका एक रूप है:

A. Virus attack
B. Service attack
C. Slammer worm
D. Melissa worm

198. Which of the following servers convert IP addresses to domain names?

निम्नलिखित में से कौन सा सर्वर आईपी पते को डोमेन नाम में परिवर्तित करता है?

A. Cloud Services
B. Email
C. P2P
D. DNS

199. Which of the following does NOT impact a computer's general performance?

निम्नलिखित में से कौन सा कंप्यूटर के सामान्य प्रदर्शन को प्रभावित नहीं करता है?

A. Size of the Graphics Card
B. CPU Speed
C. RAM Size
D. Hard Disc Speed

200. Select the option in which the words share the same relationship as that shared by the given pair of words.

Memory = RAM

उस विकल्प का चयन करें जिसमें शब्द उसी संबंध को साझा करते हैं जो दिए गए शब्दों के जोड़े द्वारा साझा किया गया है।

मेमोरी = RAM

A. Keyboard = Alphabets
B. Hard Disk = USB
C. CPU = Monitor
D. Printer = LaserJet

201. What is the full form of DHCP in networking system?

नेटवर्किंग सिस्टम में DHCP का पूर्ण रूप क्या है?

A. Dynamic Host Configuration Protocol
B. Data Host Control Panel
C. Dynamic Host Control Point
D. Display House Control Protocol

- Protocols:-

ARP – Address Resolution Protocol

GIGO – Garbage in Garbage out

202. ..... clicking on mouse selects the entire paragraph by default, while working with text document is MS Word.

एम एस वर्ड के टेक्स्ट डॉक्यूमेंट में काम करते समय माउस को ..... क्लिक करने पर यह डिफॉल्ट रूप से पूरे पैराग्राफ का चयन करता है ।

1. Alt + Single/Alt + सिंगल
2. Triple/ट्रिपल → select the word
3. Double / डबल
4. Single / सिंगल → current position of cursor

203. In MS-Excel F11 is the shortcut key for

MS-एक्सल में F11 निम्नलिखित के बराबर है

1. opening a document/डॉक्यूमेंट खोलना
2. inserting hyperlink/हाइपरलिंक इंसर्ट करना
3. help/हैल्प
4. creating a chart form the selected cell range / चयनित सेल रेंज से चार्ट सृजित करना

204. Using the 'Home Key' in Microsoft word, processor moves the cursor to the beginning of the.....

माइक्रोसाफ्ट वर्ड में 'होम की' का उपयोग करने से, प्रोसेसर कर्सर को..... के प्रारंभ में पहुंचा देता है -

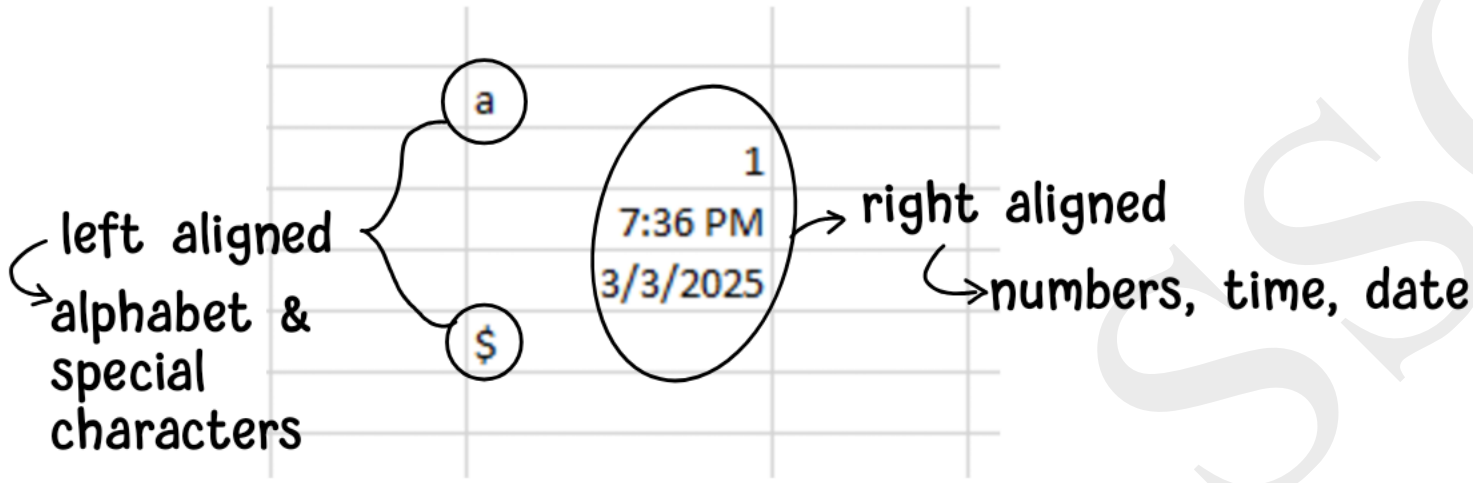
1. Page/पेज
2. file/फाइल
3. document/डाक्यूमेंट
4. line / लाइन

- End key -> to the end of line
- Ctrl + Home -> to the beginning of the document
- Ctrl + End -> to the end of the document

205. What is the default alignment of numbers in cells in an MS-Excel worksheet?

MS-Excel वर्कशीट की सेल में संख्याओं का डिफॉल्ट संरेखण क्या होता है?

1. Center
2. Left
3. Right
4. Justified



206. Which of the following cannot be part of an email address?

निम्नलिखित में से कौन सा एक ईमेल पते का हिस्सा नहीं हो सकता है?

1. Period (.)
2. AT sign (@)
3. Space ( )
4. Underscore (_)
5. Both 3 and 4

207. POP-3 is an email-related protocol. What does represent the numerical value "3" in POP-3 ?

POP-3 एक ईमेल-संबंधित प्रोटोकॉल है। POP-3 में संख्यात्मक मान "3" क्या दर्शाता है?

1. POP का हैडर आकार // Header size of POP
2. POP में करैक्टरों की संख्या // Number of characters in POP
3. POP में कोड की संख्या // Number of codes in POP
4. POP का संस्करण // Version of POP

Post Office Protocol
used to receive the mails

208. Which of the following shortcut key is similar to CTRL + S to save an open file in MS word?

निम्नलिखित में से कौन सा की शार्टकट , MS word में एक खुली फाइल को सेव करने के लिए CTRL + S के समान होता है?

1. Ctrl + F5
2. F5
3. Ctrl + F12
4. Shift + F12

find & replace dialog box
save
opens 'open' dialog box
Restore window size of the selected workbook window

save
- f12 – Save as

209. In MS Word 2010, the shortcut key used to list bullets is _____ .

एमएस वर्ड 2010 में बुलेट्स को सूचीबद्ध करने के लिए प्रयुक्त शॉर्टकट कुंजी _____ है।

1. Ctrl + P → Undo
2. Ctrl + Z
3. Shift + F3 → change case
4. Ctrl + Shift + L

UPPER CASE, lower case, Sentence case, tOGGLE cASE, Capitalise Each Word

210. Which of the following mouse clicks can be used to select a word in Ms word?

Ms word में किसी शब्द का चयन करने के लिए निम्नलिखित में से किस माउस क्लिक का उपयोग किया जा सकता है?

1. Triple left click // ट्रिपल लेफ्ट क्लिक
2. Single left click // सिंगल लेफ्ट क्लिक
3. Double left Click // डबल लेफ्ट क्लिक
4. Single Right click // सिंगल राइट क्लिक

211. What is the address of the cell at the point of intersection of the 7th row and the 10th column in an MS Excel worksheet?

MS Excel वर्कशीट में सातवीं पक्ति और दसवें स्तंभ के प्रतिच्छदन बिंदु पर स्थित सेल का एड्रेस क्या होता है?

1. $J7$
2. J7
3. 7J
4. G10

• Address of a cell – ColumnRow (alphabet → numbers)

212. Which of the following is not a valid email address?

निम्नलिखित में से कौन एक वैध ईमेल एड्रेस नहीं है?

(a) rekha@menon@gmail.com
(b) Chitralekha_123@vikas.in
(c) NARASIMHA@OUTLOOK.COM
(d) Aniruddha.Banerjee@ms.in

213. Unsolicited and unwanted junk email sent out in bulk to an indiscriminate recipient list is stored in _____ folder.

अंधाधुंध प्राप्तकर्ता सूची में थोक में भेजे गए अवांछित और अवांछित जंक ईमेल को _____ फ़ोल्डर में संग्रहीत किया जाता है।

1. inbox → Received mails
2. draft → incomplete mails
3. spam
4. trash → deleted mails

214. Which of the following keyboard shortcuts can be used to insert a hyperlink in an MS word document?

एक MS word डॉक्यूमेंट में हाइपरलिंक डालने के लिए निम्नलिखित में से किस की-बोर्ड शार्टकट का उपयोग किया जा सकता है?

1. Alt + H
2. Ctrl + K
3. Ctrl + D → open font dialog box in MS Word
4. Alt + L

215. What is the shortcut /hide ribbon bar in Microsoft Excel 2016?

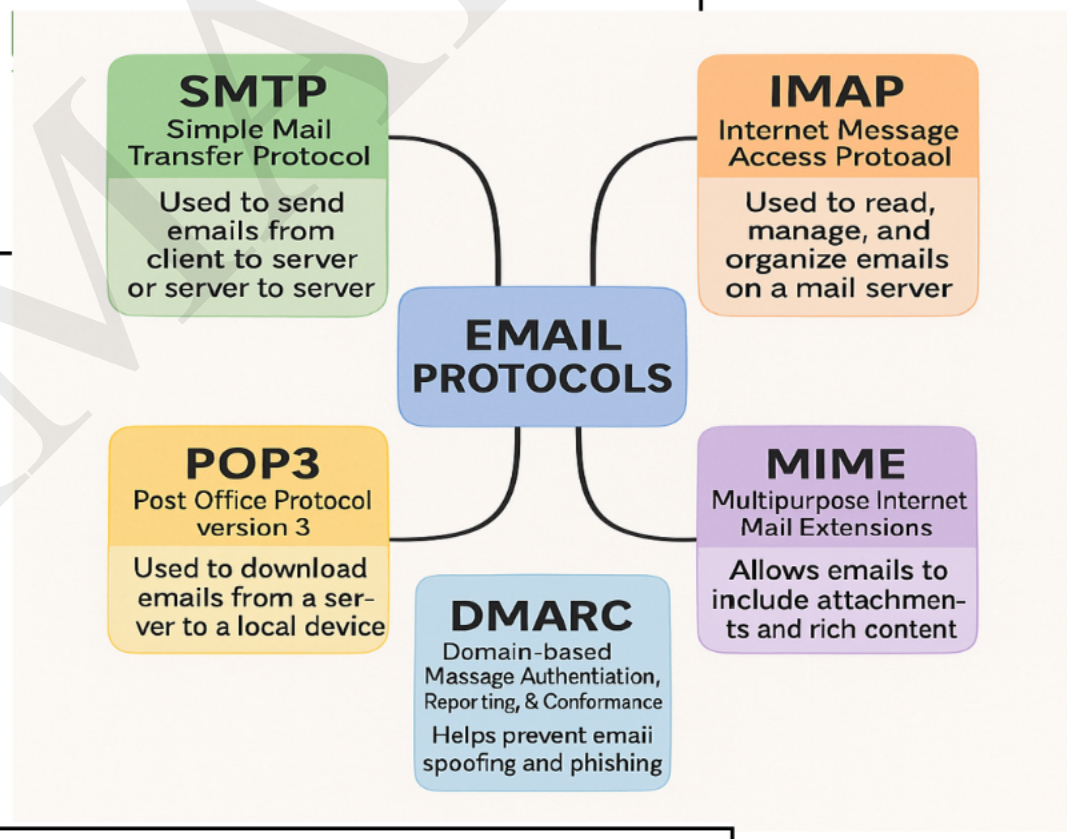
Microsoft Excel 2016 में रिबन बार छुपाने / दर्शाने के लिए कौन सी शॉर्टकट की है?

(a) F1 → help
(b) Ctrl + F1
(c) Shift + F1 → Reveal formatting
(d) Ctrl + F2 → Print Preview

216. A simple protocol used for fetching e-mail from a mail box is:

मेल बॉक्स से ई-मेल लाने के लिए उपयोग किया जाने वाला एक सरल प्रोटोकॉल है:

1. IMAP
2. POP2
3. POP3
4. SMTP



217. Which of the following icon is used to add an attachment to an email?

ईमेल में अटैचमेंट जोड़ने के लिए निम्न में से किस आइकन का उपयोग किया जाता है?

1. paper clip icon
2. emoji icon
3. Stationery icon
4. GIF icon

→ upto 25 MB in Gmail

218. What is the shortcut key to create a new folder in Windows operating system?

विंडोज ऑपरेटिंग सिस्टम में नया फोल्डर बनाने की शॉर्टकट कुंजी क्या है?

A. Ctrl + N → New document

B. Window key + R → open Run Dialog box

C. Ctrl + Shift + N

D. Alt + F4 → close the current open program

219. What is the primary function of the Control Panel in the Windows operating system?

A. To install antivirus software

B. To manage system settings and hardware configurations

C. To browse the internet

D. To open Microsoft Word

विंडोज ऑपरेटिंग सिस्टम में कंट्रोल पैनल का प्राथमिक कार्य क्या है?

A. एंटीवायरस सॉफ़्टवेयर इंस्टॉल करना

B. सिस्टम सेटिंग और हार्डवेयर कॉन्फ़िगरेशन प्रबंधित करना

C. इंटरनेट ब्राउज़ करना

D. माइक्रोसॉफ्ट वर्ड खोलना

- To open control panel:–

Press # + R –> Run dialog box opened –> Type Control –> Press Enter

220. What happens when you delete a file using Shift + Delete?

A. It goes to Recycle Bin

B. It gets compressed

C. It is permanently deleted (bypassing Recycle Bin)

D. It is backed up

जब आप Shift + Delete का उपयोग करके कोई फ़ाइल हटाते हैं तो क्या होता है?

A. यह रीसायकल बिन में चली जाती है

B. यह संपीड़ित हो जाती है

C. यह स्थायी रूप से हटा दी जाती है (रीसायकल बिन को बायपास करते हुए)

D. इसका बैकअप ले लिया जाता है

221. Which shortcut key is used to select an entire row in Microsoft Excel?

माइक्रोसॉफ्ट एक्सेल में संपूर्ण पंक्ति का चयन करने के लिए किस शॉर्टकट कुंजी का उपयोग किया जाता है?

A. Ctrl + A → select all text in document

B. Shift + Spacebar → to select entire column

C. Ctrl + Spacebar

D. Ctrl + Shift + Spaebar → to select entire sheet

222. The first mechanical computer designed by Charles Babbage was called?

चार्ल्स बैबेज द्वारा डिजाइन किया गया पहला मैकेनिकल कंप्यूटर क्या कहलाता था?

also prepared difference engine

1. Abacus
2. Analytical Engine
3. Calculator
4. Central processing unit (CPU)

223. WLL stands for?

WLL का मतलब क्या है?

(a) Walking land line
(b) Walking Loop line
(c) Wireless land line
(d) Wireless in local loop

224. Who invented Logarithms?

लघुगणक का आविष्कार किसने किया?

(a) Eden Snowden
(b) Larry Page
(c) Thomas Edison
(d) John Napier

225. DTP stands for?

डीटीपी का मतलब क्या है?

(a) Daily Text printing
(b) Desk top publishing
(c) Desk top printing
(d) Daily Text publishing

- Types of Communication:-

1. Simplex communication – unidirectional communication
   - one device only receives & another device only sends data
   - entire capacity of devices is used in transmission
   - Eg – Radio transmission, Keyboard to CPU, fire alarms Public Announcement systems
2. Half duplex communication – bidirectional
   - both devices can send kr receive data but not at the same time

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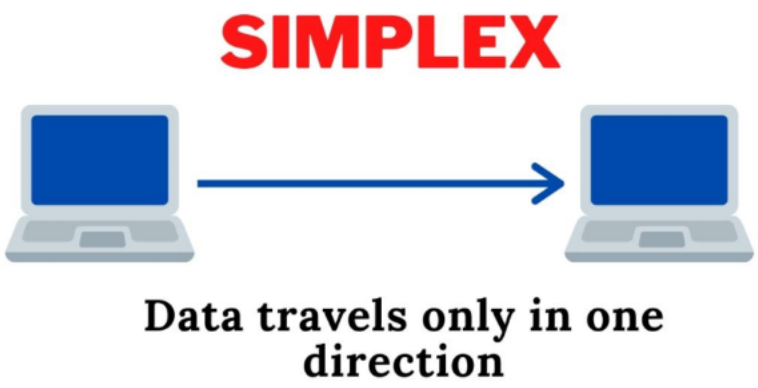
– when one is sending, the other is only receiving the data & vice versa

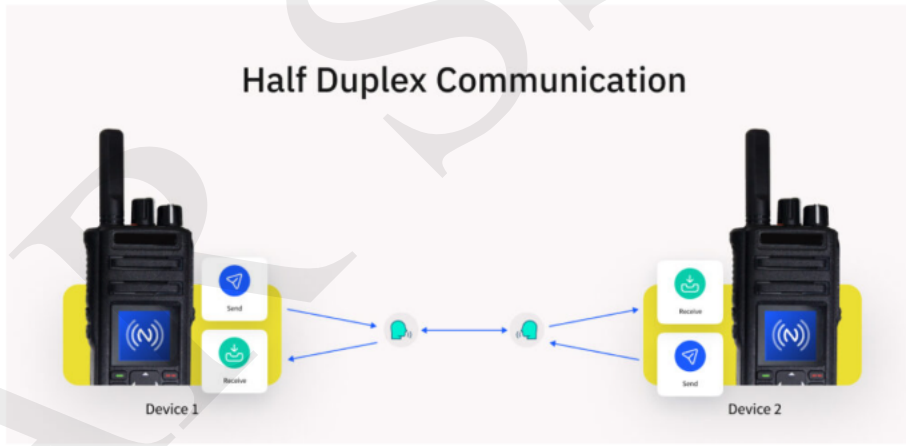
– Eg – Walkie Talkies

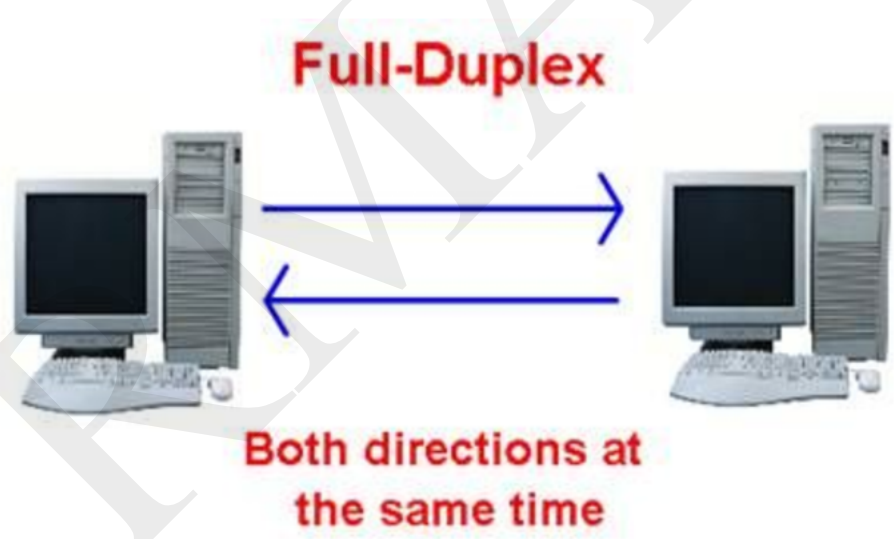
3. Full Duplex communication – bidirectional

– both devices can send & receive data at the same time

– Eg – Phone calls, video conferencing, zoom/ google meet calls Telephone landlines, online gaming chats







- UNIVAC – Universal Automatic Computer

  – 1st commercial computer

- Language C invented by –> Denis Ritchie

- Keyboard:–

  Modifier keys – shift, Alt, Ctrl, Windows key

  Toggle keys – Caps Lock, Num lock, Scroll lock

  functional keys – f1 to f12

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- Fastest memory :-

  Registers >> Cache memory

- Bold – Ctrl + B
- Italic – Ctrl + I
- Underline – Ctrl + U
- Spell check & Thesaurus are found in Review tab.
- Header & footer are found in Insert Tab.

PARMAR SSC

NOTES

DEBASISH
COLLECTION

COMPUTER ONE SHOT

1. 'PSD' is a file extension for which type of computer file?

'PSD' किस प्रकार की कंप्यूटर फ़ाइल के लिए फ़ाइल एक्सटेंशन है?

1. Adobe Acrobat
2. Adobe PhotoShop
3. Microsoft Word
4. PaintShop Pro

Photoshop document

.doc – 2007 & earlier versions,
.docx – after 2007 versions

.pdf

.psp

-> .txt – text file (notepad)

- Audio extensions:–

  -> .mp3, .wav, .flac

- Video file extensions:–

  -> .mp4, .mdv, .avi, .mpeg, .mkv, .flv

  moving picture expert group

EXTENSION	FORMAT NAME	DESCRIPTION
.jpg / .jpeg	JPEG (Joint Photographic Experts Group)	Most common; lossy compression; used in web and photography
.png	PNG (Portable Network Graphics)	Lossless compression; supports transparency
.gif	GIF (Graphics Interchange Format)	Supports animation; limited to 256 colors
.bmp	BMP (Bitmap)	Uncompressed; large file size; Windows native format
.tif / .tiff	TIFF (Tagged Image File Format)	High quality; used in printing, scanning, archiving
.webp	WebP	Developed by Google; small size with good quality (lossy/lossless)
.psd	Photoshop Document	Adobe Photoshop's native format; supports layers
.heif / .heic	High Efficiency Image Format	Used by Apple; better compression than JPEG
.raw	RAW Image	Unprocessed camera data; used in DSLR photography
.ico	Icon File	Used for website and desktop icons

Image file extensions

2. Which among the following units is used to count the speed of modern printers?

आधुनिक प्रिंटर की गति गिनने के लिए निम्नलिखित में से किस इकाई का उपयोग किया जाता है?

1. LPM
2. BIT
3. CPM
4. PPM

Page per minute

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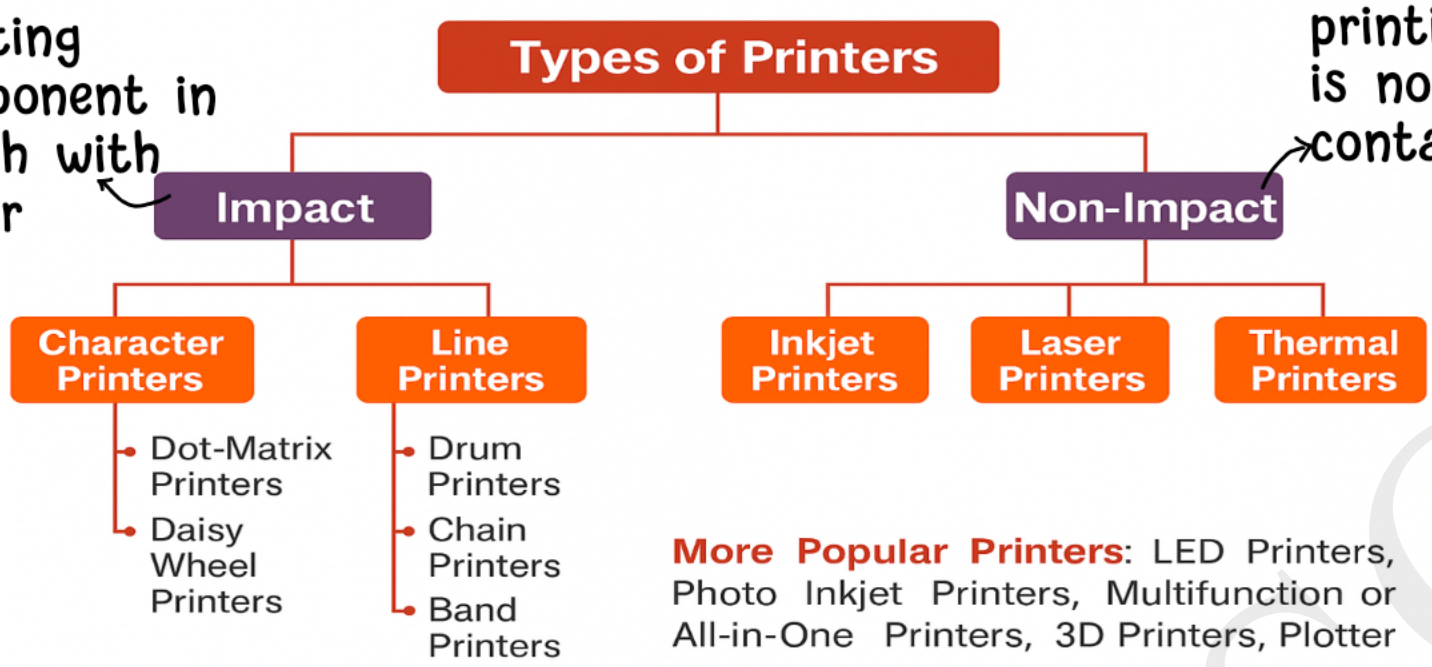
printing component in touch with paper

printing component is not in Direct contact of paper



More Popular Printers: LED Printers, Photo Inkjet Printers, Multifunction or All-in-One Printers, 3D Printers, Plotter

3. In Microsoft Excel, a workbook is a collection of:

माइक्रोसॉफ्ट एक्सेल में, कार्यपुस्तिका निम्नलिखित का संग्रह है:

1. charts
2. word books
3. photos
4. worksheets

application software → designed for specific task

- group of cells -> worksheet
- Group of worksheets -> workbook

4. Who is considered to be the Father of Modern Computers?

आधुनिक कम्प्यूटर का जनक किसे माना जाता है?

1. James Gosling → Java programming language
2. Alan Turing
3. Charles Babbage → father of computer
4. Gordon E Moore

TITLE / FIELD	PERSON NAME	CONTRIBUTION
Father of the Computer	Charles Babbage	Designed the first mechanical computer – the Analytical Engine
Father of the Personal Computer	Ed Roberts	Created the MITS Altair 8800, the first widely sold PC
Father of the Microprocessor	Marcian Hoff (Ted Hoff)	Designed the first microprocessor at Intel
Father of the Internet	Vint Cerf & Bob Kahn	Developed TCP/IP protocols
Father of the World Wide Web & HTML	Tim Berners-Lee	Invented the WWW and the first web browser
Father of Artificial Intelligence (AI)	John McCarthy	Coined the term "AI" and developed Lisp programming language
Father of Computer Programming	Ada Lovelace	Wrote the first algorithm intended for a machine (Analytical Engine)
Father of Operating Systems	Gary Kildall	Developed CP/M, one of the first operating systems for microcomputers
Father of Supercomputing	Seymour Cray	Built the first supercomputers (Cray-1 and beyond)

Father of Information Theory	Claude Shannon	Founded the field of information theory
Father of the Laptop	Adam Osborne	Developed the Osborne 1, the first portable computer
Father of the Graphical User Interface (GUI)	Douglas Engelbart	Invented the computer mouse and demonstrated the first GUI
Father of Indian IT Industry	Narayan Murthy	Founded Infosys, pivotal in India's IT revolution
Father of Free Software Movement	Richard Stallman	Launched the GNU Project and promoted software freedom

5. Internet was started in India on:

भारत में इंटरनेट की शुरुआत कब हुई थी:

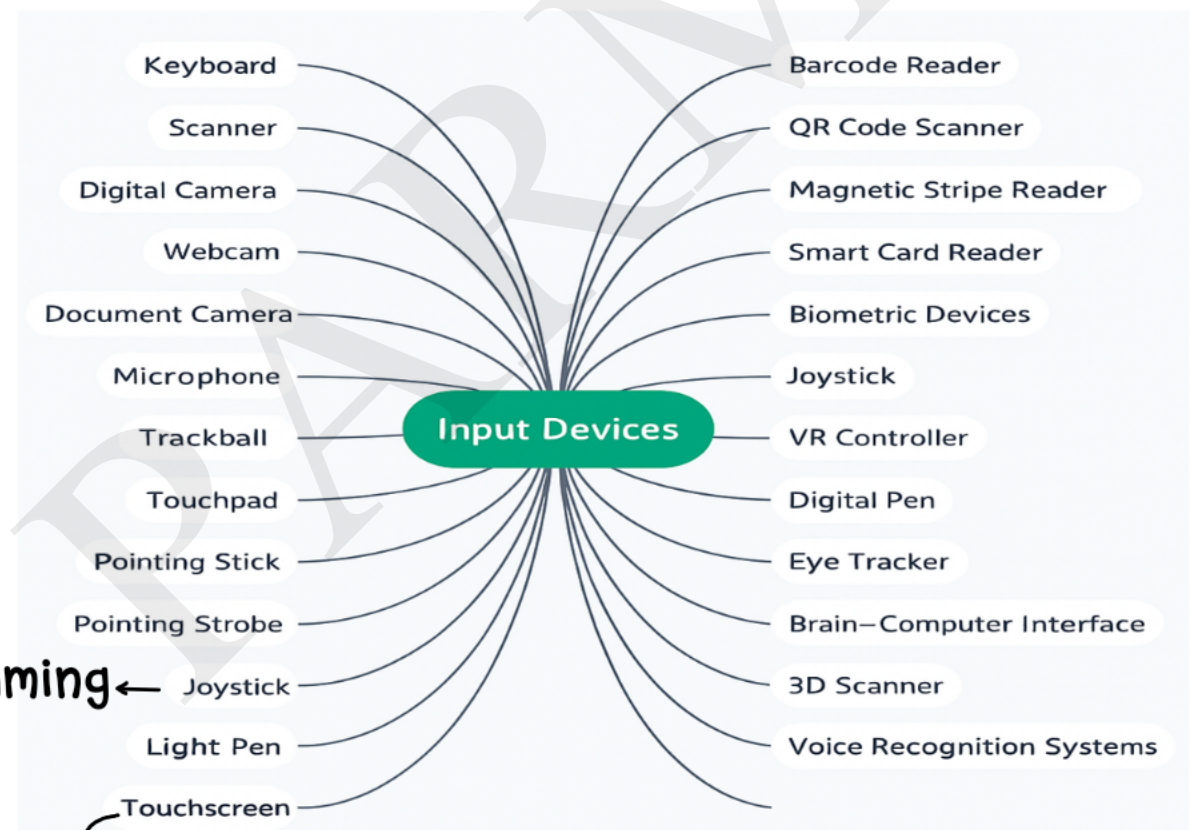
1. 9th August, 1996
2. 11th August, 1995
3. 8th August, 1994
4. 15th August, 1995

6. Which among the following is an output device in the context of computer system?

कंप्यूटर सिस्टम के संदर्भ में निम्नलिखित में से कौन सा आउटपुट डिवाइस है?

1. Track ball
2. Plotter → prints banners
3. Light pen
4. Magnetic scanner

- Output devices -> gives output to the input commands in form of graphics/ sound/ paper.



gaming ← Joystick

Touchscreen → works as both input & output device

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- Optical Recognition Technologies (Input devices) :-

1. OCR – Optical Character Recognition – text Recognition
2. OMR – Optical Mark Recognition – marked area detection
3. MICR – Magnetic Ink Character Recognition – cheques processing

- Output devices:-

Monitor (VDU – Visual Display Unit), touchscreen, printer, fax machine, Braille reader, Speakers, Headphones, Digital signage displays, projector, Virtual Reality Headset (VR Headset), Smart board/ interactive whiteboard plotter

7. Which of the following is NOT an output device?

निम्नलिखित में से कौन आउटपुट डिवाइस नहीं है?

1. Monitor
2. Speaker
3. Scanner
4. printer

8. In recognition technology OMR is used, what does M stand for?

पहचान तकनीक में OMR का प्रयोग किया जाता है, M का क्या अर्थ है?

1. Mark
2. Mirroring
3. Manipulator
4. Magnetic

9. Which of the following is NOT a database software used on computers?

निम्नलिखित में से कौन सा कंप्यूटर पर उपयोग किया जाने वाला डेटाबेस सॉफ्टवेयर नहीं है?

1. FoxPro
2. MS Word → document (word processing software)
3. MS Access
4. Oracle

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- Some database softwares –> MySQL, SQLite, Firebird, Amazon RDS, Filemaker, Foxpro, Oracle

10. _____ is a mechanism used by the Government of India to contact citizens across India electronically via emails, outbound dialing and SMS messages.

_____ भारत सरकार द्वारा ईमेल, आउटबाउंड डायलिंग और एसएमएस संदेशों के माध्यम से पूरे भारत में नागरिकों से इलेक्ट्रॉनिक रूप से संपर्क करने के लिए उपयोग किया जाने वाला एक तंत्र है।

1. EMSIPS
2. eGreetings
3. eOffice
4. eSampark

1 Bit = Binary Digit → smallest unit

8 Bits = 1 Byte
1024 Bytes = 1 KB (Kilo Byte)
1024 KB = 1 MB (Mega Byte)
1024 MB = 1 GB (Giga Byte)
1024 GB = 1 TB (Terra Byte)
1024 TB = 1 PB (Peta Byte)
1024 PB = 1 EB (Exa Byte)
1024 EB = 1 ZB (Zetta Byte)
1024 ZB = 1 YB (Yotta Byte)
1024 YB = 1 (Bronto Byte)
1024 Brontobyte = 1 (Geop Byte)

Geop Byte is The Highest Memory Measurement Unit

Memory measurement units in computer

- 4 bit = 1 Nibble

11. 1 Peta Byte is equal to:

1 पेटा बाइट बराबर है:

1.1024GB
2. 1024 MB
3. 1024 TB
4. 1024KB

- KB < MB < GB < TB < PB < EB < ZB < YB < BB < Geopbyte

कब में गया तब पंजाब इब ज्यादा या बरबाद जियो

12. Which of the following is NOT a type of desktop operating system?

निम्नलिखित में से कौन डेस्कटॉप ऑपरेटिंग सिस्टम का प्रकार नहीं है?

1. Windows
2. Mac
3. Android → Mobile
4. Linux

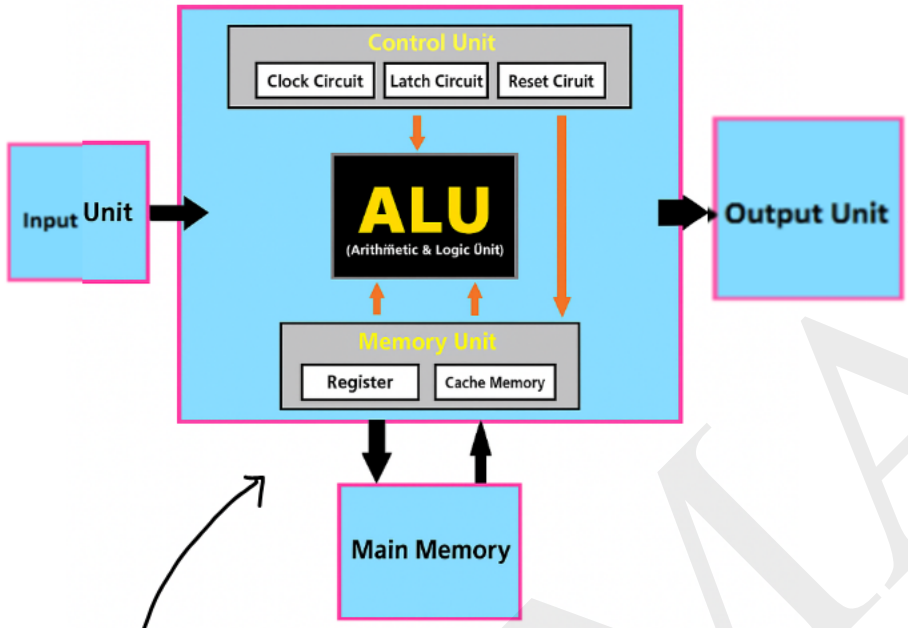
Microsoft Windows (Proprietary)

- Windows 11
- Windows 10
- Windows 8/8.1
- Windows 7
- Windows Vista
- Windows XP
- Windows 2000 / NT
- Windows 98/95

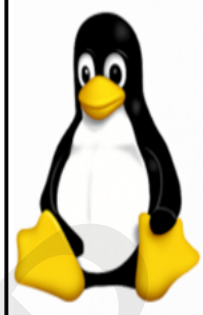
macOS (Apple Proprietary)

- macOS Sonoma
- macOS Ventura
- macOS Monterey
- macOS Big Sur
- macOS Catalina
- macOS Mojave
- OS X Series (Yosemite, El Capitan, etc.)

Central Processing Unit (CPU)



Linux Distributions (Open Source)



- Ubuntu
- Fedora
- Debian
- Linux Mint
- Arch Linux
- Manjaro
- Kali Linux
- Zorin OS
- Pop!_OS
- Red Hat Enterprise Linux (RHEL)
- Elementary OS

13. Which of the following are the two components of the CPU of a computer?

निम्नलिखित में से कौन से कंप्यूटर के सीपीयू के दो घटक हैं?

1. Control unit and Bus
2. Control unit and ALU → Arithmetic logic unit
3. ALU and Bus
4. Registers and Main memory

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14. Ubuntu, Mint and Fedora are versions of:

उबंटू, मिंट और फेडोरा इनके संस्करण हैं:

1. MS DOS
2. windows 10
3. Linux
4. Apple MAC OS X

15. _____ is a high-level programming language for scientific and mathematical use.

_____ वैज्ञानिक और गणितीय उपयोग के लिए एक उच्च स्तरीय प्रोग्रामिंग भाषा है।

1. EDP
2. FORTRAN → Formula translation, by John Backus in 1957
3. COBOL → Common Business Oriented Language
4. RFID

- Some high level programming languages:–

Python (by Guidon Van Rossum), Java (by James Gosling), C++, JavaScript, Ruby, Swift, Go (Golang), PHP (Personal homepage – afterwards Hyper text Processor), Scala, Perl

- FORTRAN – 1st High level language

16. Inventor of Bluetooth is _____ .

ब्लूटूथ का आविष्कारक _____ है।

1. Charles Simonyi
2. Bill gates
3. Paul Allen
4. Jaap Haartsen

unit – Piconet

- it is PAN – Personal Area Network
- it works on Radiowaves with ultra high frequency
- Range – 10 m

17. In Telecom field, ISP stands for:

दूरसंचार क्षेत्र में, ISP का तात्पर्य है:

1. Internet Speed Provider
2. Internet Speed Protocol
3. Internet Service Protocol
4. Internet Service Provider

→ Eg – Jio, airtel, BSNL

18. Which of the following websites is NOT related to Education?

निम्नलिखित में से कौन सी वेबसाइट शिक्षा से संबंधित नहीं है?

1. www.ncert.nic.in
2. www.ignou.ac.in
3. www.onlinesbi.com → Banking business purpose
4. www.education.nic.in

.edu – educational websites

19. Which of the following is needed to access the Internet?

इंटरनेट तक पहुंचने के लिए निम्नलिखित में से क्या आवश्यक है?

1. Unique IP Address → every website & device has unique IP address for smooth data transmission
2. Email
3. TV
4. Hacker

- IP–v4 –> 32 bit
- IP–v6 –> 128 bit

20. Which of the following is an antivirus software?

निम्नलिखित में से कौन सा एंटीवायरस सॉफ्टवेयर है?

1. Google
2. XML
3. Norton
4. Microsoft

- Antivirus softwares -> Quickheal, Avira, Macfree, Avast

21. What is the full form of ADSL in the context of telephony?

टेलीफोनी के संदर्भ में ADSL का पूर्ण रूप क्या है?

1. Asymmetrical Digital Subscriber Line
2. Asymmetrical Digital Software Line
3. Aligned Digital Software Line
4. Aligned Digital Subscriber Line

can use internet with telephone wire

22. What type of signals does DVI- I pass?

DVI-I किस प्रकार के सिग्नल पास करता है?

1. Passes neither digital nor analog video signals
2. Passes both digital and analog video signals
3. Passes only digital video signals
4. Passes only analog video signals

Digital Visual/Video interface

- PS/2 port -> for mouse & Keyboard – 6 pins in circular shape

  -> green for mouse & purple for keyboard

- VGA port -> Video Graphics Array
- HDMI port -> High Definition Multimedia Interface
- USB -> Universal serial Bus
- SATA -> Serial Advanced Technology Attachment
- PATA -> Parallel Advanced Technology Attachment
- SATA & PATA -> in motherboard for connecting hard disk & Solid State drives (SSD)
- RJ45 -> Ethernet port

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23. Which of the following is NOT a super computer?

निम्नलिखित में से कौन सुपर कंप्यूटर नहीं है?

1. Cray-3
2. PARAM
3. PDA → Personal digital assistant
4. EKA

PARAM Series Supercomputers

NAME	YEAR INTRODUCED	KEY HIGHLIGHTS
PARAM 8000	1991	India's first indigenous supercomputer
PARAM 8600	1992	Enhanced version with improved performance
PARAM 9000	1994	Available in multiple configurations (9000/SS, 9000/US)
PARAM 10000	1998	Peak performance ~100 GFLOPS
PARAM Padma	2002	First Indian supercomputer on TOP500 list
PARAM Yuva	2008	Used for scientific research and modeling
PARAM Yuva II	2013	Upgraded with enhanced performance (~524 TFLOPS)
PARAM Kanchenjunga	2015	Installed at NIT Sikkim
PARAM Shavak	2015	Desk-side supercomputer for institutions
PARAM Shivay	2019	Installed at IIT-BHU under National Supercomputing Mission
PARAM Brahma	2020	Pune-based system
PARAM Siddhi-AI	2020	India's fastest AI supercomputer (~5.267 PFLOPS)
PARAM Ganga	2022	Installed at IIT Roorkee
PARAM Pravega	2022	Installed at IISc Bangalore
PARAM Ananta	2022	Installed at IIT Gandhinagar
PARAM Shakti	2022	Installed at IIT Kharagpur

Supercomputer Name	Year of Launch	Purpose / Specialization
EKA	2007	General-purpose high-performance computing
Annapurna	~2014	Space research and satellite data processing
Pratyush	2018	Weather forecasting
Mihir	2018	Climate research and atmospheric modeling
SAGA-220	2011	Aerospace simulation & research
Aaditya	~2013	Climate modeling
Vikram-100	~2015	Scientific simulations and astrophysics

SUPERCOMPUTER NAME	COUNTRY	NOTES / DEVELOPER
El Capitan	USA	Fastest (2025); Developed by HPE & AMD
Frontier	USA	Former fastest; Oak Ridge National Lab
Fugaku	Japan	RIKEN and Fujitsu
Summit	USA	IBM and NVIDIA
Sierra	USA	Lawrence Livermore National Lab
LUMI	Finland	EuroHPC joint initiative
Sunway TaihuLight	China	National Supercomputing Center, Wuxi
Tianhe-2 (MilkyWay-2)	China	National University of Defense Technology
Selene	USA	Built by NVIDIA
Perlmutter	USA	NERSC, Berkeley Lab
Aurora	USA	Intel & Cray at Argonne National Lab

- 1st Supercomputer of India – PARAM 8000
- Speed of supercomputer is measured in –> fLOPS (floating point operations per second)
- 1st Supercomputer –> CDC–6600 (1964)

24. What is the full form of PROM?

PROM का पूर्ण रूप क्या है?

A) Primary Read-Only Memory
B) Programmable Read-Only Memory
C) Protected Read-Only Memory
D) Permanent Read-Only Memory

- Types of Read Only Memory (ROM):–

1. ROM – permanently written during manufacturing
2. PROM – Programmable ROM – can be programmed by user once
3. EPROM – Erasable Programmable ROM – can be erased using UV lights & reprogrammed
4. EEPROM – Electrically Erasable Programmable ROM– can be erased & reprogrammed using electric signal
5. Flash ROM – type of EEPROM with faster erase/ Program capability

25. An interface between the human user and the computer hardware is known as _____ .

मानव उपयोगकर्ता और कंप्यूटर हार्डवेयर के बीच इंटरफेस को _____ के रूप में जाना जाता है।

1. modem
2. operating system
3. software
4. operating unit

26. FORTRAN is the _____.

फोरट्रान _____ है।

1. language of the fifth generations of computers.
2. first electronic digital computer of the world.
3. link to connect all the universities.
4. first high level programming language.

27. ROM is composed of:

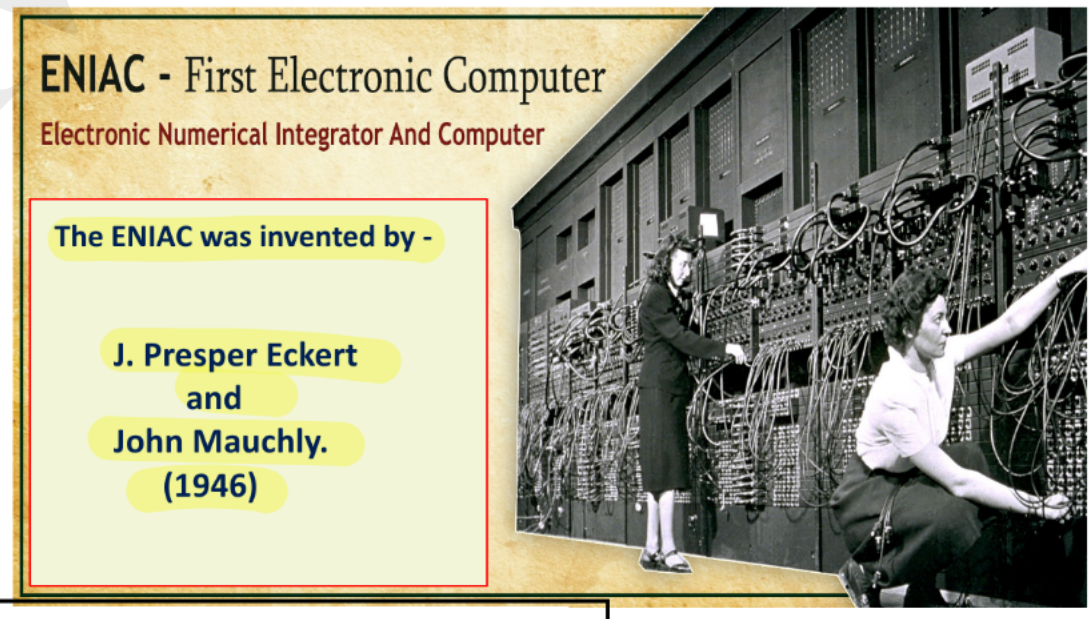
ROM निम्नलिखित से बना होता है:

1. semiconductors
2. photoelectric cells
3. integrated circuits
4. magnetic tapes → type of secondary memory

28. ENIAC, the first general-purpose electronic computer, stands for:

ENIAC, पहला सामान्य प्रयोजन इलेक्ट्रॉनिक कंप्यूटर, का अर्थ है:

1. Electronic Numerical Integrator and Computer
2. Electronic Network Interactive Analytic Computer
3. Electronic Network Integrated Analytical Computer
4. Electronic Numerical Integrated Automatic Computer



29. What is the full form of ODBC in terms of computing?

कंप्यूटिंग की दृष्टि से ODBC का पूर्ण रूप क्या है?

1. Open data base compliance
2. Open data base correction
3. Open data base connection
4. Open data base connectivity

- Open database Connectivity – ODBC:–

  standard API that allows applications to access data from a variety of database management systems (DBMS) using SQL.

- API –> Application Programming Interface

30. **Which of the following is not a version of Android?**

निम्नलिखित में से कौन सा एंड्रॉइड का संस्करण नहीं है?

1. Marshmallow
2. Gingerbread
3. Oreo
4. Candy

Name	Internal codename[11]	Release date
Android 1.0	—	September 23, 2008
Android 1.1	Petit Four	February 9, 2009
Android Cupcake	Cupcake	April 27, 2009
Android Donut	Donut	September 15, 2009
Android Eclair	Eclair	October 27, 2009
		December 3, 2009
		January 11, 2010[18]
Android Froyo	Froyo	May 20, 2010
Android Gingerbread	Gingerbread	December 6, 2010
		February 9, 2011
Android Honeycomb	Honeycomb	February 22, 2011
		May 10, 2011
		July 15, 2011
Android Ice Cream Sandwich	Ice Cream Sandwich	October 18, 2011
		December 16, 2011
Android Jelly Bean	Jelly Bean	July 9, 2012
		November 13, 2012
		July 24, 2013
Android KitKat	Key Lime Pie	October 31, 2013
		June 25, 2014
Android Lollipop	Lemon Meringue Pie	November 4, 2014[19]
		March 2, 2015[20]
Android Marshmallow	Macadamia Nut Cookie	September 29, 2015[21]
Android Nougat	New York Cheesecake	August 22, 2016
		October 4, 2016
Android Oreo	Oatmeal Cookie	August 21, 2017
		December 5, 2017
Android Pie	Pistachio Ice Cream[22]	August 6, 2018
Android 10	Quince Tart[23]	September 3, 2019
Android 11	Red Velvet Cake[23]	September 8, 2020
Android 12	Snow Cone	October 4, 2021
Android 12L	Snow Cone v2	March 7, 2022
Android 13	Tiramisu	August 15, 2022
Android 14	Upside Down Cake[26]	October 4, 2023
Android 15	Vanilla Ice Cream[27]	September 3, 2024
Android 16	Baklava[28]	May 13, 2025[29]

Android versions

31. _____ is an Integrated Library Management Software developed by National Informatics Centre (NIC), Department of Electronics & Information Technology. The application is useful for automation of in-house activities of libraries and to provide various online member services.

_____ राष्ट्रीय सूचना विज्ञान केंद्र (एनआईसी), इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी विभाग द्वारा विकसित एक एकीकृत पुस्तकालय प्रबंधन सॉफ्टवेयर है। यह एप्लिकेशन पुस्तकालयों की आंतरिक गतिविधियों के स्वचालन और विभिन्न ऑनलाइन सदस्य सेवाएँ प्रदान करने के लिए उपयोगी है।

1. Digi LOCKER → to keep important documents
2. eOffice
3. Disha
4. e-Granthalaya

32. The full form of IBM in IBM Corporation is:

आईबीएम कॉर्पोरेशन में आईबीएम का पूर्ण रूप है:

1. Indian Business Machines
2. International Business Machines
3. Indian Broadcasting Machines
4. International Broadcasting Machines

33. In the context of web pages, what does SEO stand for?

वेब पेजों के संदर्भ में SEO का क्या अर्थ है?

1. Search Engine Optimisation
2. Search Editing Optimisation
3. Slack Editing Optimisation
4. Slack Engine Optimisation

→ Increase website ranking

Boost organic traffic

Target related keywords

34. A programme or piece of code that is loaded onto a person's computer without his/her knowledge and runs against his/her wishes is a type of malware called:

एक प्रोग्राम या कोड का टुकड़ा जो किसी व्यक्ति के कंप्यूटर पर उसकी जानकारी के बिना लोड किया जाता है और उसकी इच्छा के विरुद्ध चलता है, एक प्रकार का मैलवेयर कहलाता है:

1. Virus
2. Trojan Horse
3. Spyware
4. Zeus

- Some virus types:-

1. File infector virus – attached to executable files (.exe) & spreads when file runs

2. Macro virus –> infects documents (like MS Word & Excel) using macro scripts

3. Boot sector virus – infects the boot sector of storage devices, activates when system starts

4. Trojan Horse – disguises as legitimate software but performs malicious activities

5. Worm – self replicating, doesn't need a host file to spread

6. Spyware – secretly collects user information

7. Adware – automatically displays or downloads ads, slowing down the system

8. Ransomware – locks or encrypts files & demands payment to unlock

9. Polymorphic virus – changes its code to avoid detection by antivirus

10. Resident virus – hides in the system memory & infects files when opened or modified

11. Rootkit – Hides malicious activities by gaining root level access to the system

12. Logic Bomb – activates when specific conditions are met (date/ time,etc.)

Type of Virus	कार्य / व्यवहार
File Infector Virus	निष्पादन योग्य फ़ाइलों (.exe) से जुड़ता है और फ़ाइल चलाने पर फैलता है
Macro Virus	मैक्रो स्क्रिप्ट का उपयोग करके दस्तावेज़ों (जैसे MS Word या Excel) को संक्रमित करता है
Boot Sector Virus	भंडारण उपकरणों के बूट सेक्टर को संक्रमित करता है; सिस्टम शुरू होने पर सक्रिय होता है
Trojan Horse	वैध सॉफ़्टवेयर के रूप में प्रच्छन्न लेकिन दुर्भावनापूर्ण गतिविधियाँ करता है
Worm	होस्ट फ़ाइल की आवश्यकता के बिना स्वयं-प्रतिकृति और नेटवर्क पर फैलता है
Spyware	गुप्त रूप से उपयोगकर्ता की जानकारी (पासवर्ड, ब्राउज़िंग डेटा, आदि) एकत्रित करता है।
Adware	स्वचालित रूप से विज्ञापन प्रदर्शित या डाउनलोड करता है, जिससे अक्सर सिस्टम धीमा हो जाता है
Ransomware	फ़ाइलों को लॉक या एन्क्रिप्ट करता है और पहुंच बहाल करने के लिए भुगतान की मांग करता है
Polymorphic Virus	एंटीवायरस सॉफ़्टवेयर द्वारा पता लगाने से बचने के लिए अपना कोड बदलता है
Resident Virus	सिस्टम मेमोरी में छिप जाता है और फ़ाइलों को खोलते या संशोधित करते ही उन्हें संक्रमित कर देता है
Rootkit	सिस्टम तक रूट-स्तर तक पहुंच प्राप्त करके दुर्भावनापूर्ण गतिविधियों को छुपाता है
Logic Bomb	विशिष्ट शर्तें पूरी होने पर सक्रिय होता है (जैसे, दिनांक/समय या उपयोगकर्ता क्रिया)

35. Which among the following is NOT an open source software?

निम्नलिखित में से कौन सा ओपन सोर्स सॉफ्टवेयर नहीं है?

1. Android
2. Linux
3. Microsoft Office
4. Mozilla Firefox

- Free & Open Source software (FOSS):–
  - when source code & software is freely available to public to help each other
  - Example – Ubuntu, Python, Libreoffice, Openoffice, Mozilla Firefox,etc
- Freeware:–

  software is freely available but source code is not available

  Example – Skype, Adobe Reader, etc.
- Proprietary software:–

  software purchased from vendor who has its copyright

  Example – Microsoft windows, Tally, Quickheal, etc.

36. ____ is a generic term, which refers to all the legal and regulatory aspects of Internet and the World Wide Web.

____ एक सामान्य शब्द है, जो इंटरनेट और वर्ल्ड वाइड वेब के सभी कानूनी और नियामक पहलुओं को संदर्भित करता है।

1. Hackers
2. Cookies → small text files stored on a user's device by a web browser when visiting a website
3. Tool
4. Cyber law

37. How many bytes are equal to 1 kilo byte in Binary system?

बाइनरी प्रणाली में 1 किलो बाइट कितने बाइट के बराबर होते हैं?

1. 1048 Bytes
2. 1042 Bytes
3. 1012 Bytes
4. 1024 Bytes

38. In Internet technology, what does DNS stand for?

इंटरनेट प्रौद्योगिकी में DNS का क्या अर्थ है?

1. Dynamic Name System
2. Distributed Name system
3. Divided Name System
4. Domain Name System

39. What kind of storage is RAM?

RAM किस प्रकार का भण्डारण है?

1. Primary
2. Tertiary
3. Secondary
4. Offline

→ RAM & ROM

→ storage devices – hard disk, SSD, pendrive, CD, DVD, memory chips

40. A typewriter-like tool, which is used to send data or commands to the computer is called:

टाइपराइटर जैसा उपकरण, जिसका उपयोग कंप्यूटर पर डेटा या कमांड भेजने के लिए किया जाता है, कहलाता है:

1. Joystick
2. Optical Character Reader (OCR)
3. Mouse
4. Keyboard

41. Select the option with the INCORRECT full form for the corresponding acronyms.

संबंधित परिवर्णी शब्दों के लिए गलत पूर्ण रूप वाले विकल्प का चयन करें।

1. C-DAC: Centre for Development of Advanced Computing
2. CHOGM: Commonwealth Heads of Government Ministries
3. CITES: Convention on International Trade in Endangered Species
4. CCI: Competition Commission of India

→ Meeting

42. What does the acronym SMPS stand for?

SMPS का संक्षिप्त रूप क्या है?

1. Switched-Mode Power Supply
2. Single-Mode Power Supply
3. Start-Mode Power Supply
4. Store-Mode Power Supply

→ decides power Supply

- CMOS – Complementary Metal oxide semiconductor

43. From the given options, select the developer of 'PARAM 10000', a supercomputer of Indian origin.

दिए गए विकल्पों में से भारतीय मूल के सुपर कंप्यूटर 'PARAM 10000' के डेवलपर का चयन करें।

1. Tata
2. C-DAC, Pune
3. IIT Kanpur
4. IIT-Kharagpur

44. What is Optical Distribution Network (ODN)?

ऑप्टिकल डिस्ट्रीब्यूशन नेटवर्क (ODN) क्या है?

1. The physical fibres that distribute signals to users in a telecommunications network.
2. The physical fibres that distribute signals to users in an electronic circuit.
3. The optical devices that cannot distribute signals.
4. The physical fibre and optical devices that distribute signals to users in a telecommunications network.

45. Which of the following is NOT a series of the supercomputer PARAM that was developed by Indian scientists?

निम्नलिखित में से कौन सा सुपरकंप्यूटर PARAM की श्रृंखला नहीं है जिसे भारतीय वैज्ञानिकों द्वारा विकसित किया गया था?

1. PARAM 8000
2. PARAM BRAHMA
3. PARAM 8600
4. PARAM MITRA

46. What is the full form of COBOL?

COBOL का पूर्ण रूप क्या है?

1. Computer Basic Operation Language
2. Computer Business Oriented Language
3. Common Business Organised Language
4. Common Business Oriented Language → high level language by Grace Murray Hopper

47. Which function key in Excel helps to switch to edit mode?

एक्सेल में कौन सी फ़ंक्शन कुंजी संपादन मोड में स्विच करने में मदद करती है?

1. F7 → Spell check
2. F2
3. F5 → go to dialog box
4. F3

- Active Cell -> darker outline
- Shift + f7 -> Thesaurus tool (similar words)
- Shift + f3 -> to insert a function
- Formula in MS Excel always starts with an '=' (equal to) sign.

48. _____ is a communication protocol.

_____ एक संचार प्रोटोकॉल है।

1. HTTP → Hyper Text Transfer Protocol (S–secure)
2. CP
3. HTP
4. TP

49. Which is called as brain of any computer system?

किसी भी कंप्यूटर सिस्टम का मस्तिष्क किसे कहा जाता है?

1. Monitor
2. ALU
3. CPU → Central Processing Unit
4. UPS → Uninterrupted power supply

50. What is the full form of PDF in the context of file formats?

फ़ाइल स्वरूपों के संदर्भ में पीडीएफ का पूर्ण रूप क्या है?

1. Portable Document Format
2. Prefixed Detachable Format
3. Picture Disc Format
4. Processing Digital File

51. In the context of computing, which among the following is the correct order?

कंप्यूटिंग के संदर्भ में, निम्नलिखित में से कौन सा क्रम सही है?

1. TB>GB>MB>KB
2. GB >TB>MB>KB
3. MB>GB>TB>KB
4. TB>KB>MB>GB

52. Which of the following is an open source operating system to manage computer hardware and software?

निम्नलिखित में से कौन सा कंप्यूटर हार्डवेयर और सॉफ्टवेयर को प्रबंधित करने के लिए एक ओपन सोर्स ऑपरेटिंग सिस्टम है?

1. Macintosh
2. Microsoft Windows
3. Linux
4. Apple

53. As of May 2025, who is the CEO of Google?

मई 2025 तक गूगल का सीईओ कौन होगा?

1. Ajay Banga
2. Sundar Pichai
3. Indra Nooyi
4. Satya Nadella

54. Which of the following statements is INCORRECT?

निम्नलिखित में से कौन सा कथन गलत है?

1. The first computer in India was installed in the Indian Statistical Institute, Kolkata.
2. Vint Cerf is recognised as one of the 'Fathers of the Internet'.
3. Hotmail is the first free web-based email service introduced in 1995.
4. In internet terminology, IP means Internet Practice.

→ Internet protocol

- Father of email -> Ray Tomilson

55. What is the function of WinZip?

WinZip का कार्य क्या है?

1. It extracts smaller files from larger files.
2. It compresses large files into a smaller file.
3. It expands smaller files into a large file.
4. It is an anti-virus software.

- WinRar -> used to extract file

56. In Information Technology, what does DASD stand for?

सूचना प्रौद्योगिकी में DASD का क्या अर्थ है?

1. Direct Access Storage Domain
2. Direct Access Storage Device
3. Direct Access Standard Device
4. Device for Access and Storage of Domain

57. If Bill Gates had his way, by what name was Windows OS planned to be released?

यदि बिल गेट्स की बात मानी जाती तो विंडोज ऑपरेटिंग सिस्टम को किस नाम से जारी करने की योजना थी?

1. Clipboard Viewer
2. Interface Manager
3. Calculator
4. Control Panel

58. What was the first domain name ever registered in the World Wide Web?

वर्ल्ड वाइड वेब पर पंजीकृत पहला डोमेन नाम कौन सा था?

1. www.computer.com
2. www.linux.com
3. www.symbolics.com
4. www.server.com

59. Which among the following is the largest unit of memory?

निम्नलिखित में से स्मृति की सबसे बड़ी इकाई कौन सी है?

1. Petabyte
2. Gigabyte
3. Terabyte
4. Megabyte

60. Debugging is another term for:

डिबगिंग का दूसरा शब्द है:

1. executing
2. removing errors
3. compiling
4. not reading comments

61. The COBOL language is suitable for:

COBOL भाषा निम्नलिखित के लिए उपयुक्त है:

1. creating graphical interfaces
2. business purposes
3. scientific purposes
4. educational purposes

62. Which of the following is a single chip based device that is a complete processor in itself and is capable of performing arithmetic and logical operations?

निम्नलिखित में से कौन सा एकल चिप आधारित उपकरण है जो अपने आप में एक पूर्ण प्रोसेसर है और अंकगणितीय और तार्किक संचालन करने में सक्षम है?

1. Operating system
2. Modem
3. Microprocessor
4. Multiprocessing

63. In the context of computers, the time taken to receive data from a storage device or to obtain data from a peripheral unit is known as _____ .

कंप्यूटर के संदर्भ में, किसी स्टोरेज डिवाइस से डेटा प्राप्त करने या किसी परिधीय इकाई से डेटा प्राप्त करने में लगने वाले समय को _____ के रूप में जाना जाता है।

1. Downtime
2. Time sharing
3. Access time
4. Time slicing

64. Which one is not an e-shopping website from the following?

निम्नलिखित में से कौन सी ई-शॉपिंग वेबसाइट नहीं है?

1. www.pepperfry.com
2. www.twitter.com → 'X' now
3. www.jabong.com
4. www.flipkart.com

65. A network of computers and other devices that are confined to a relatively small space is called:

कंप्यूटरों और अन्य उपकरणों का एक नेटवर्क जो अपेक्षाकृत छोटे स्थान तक सीमित होता है, कहलाता है:

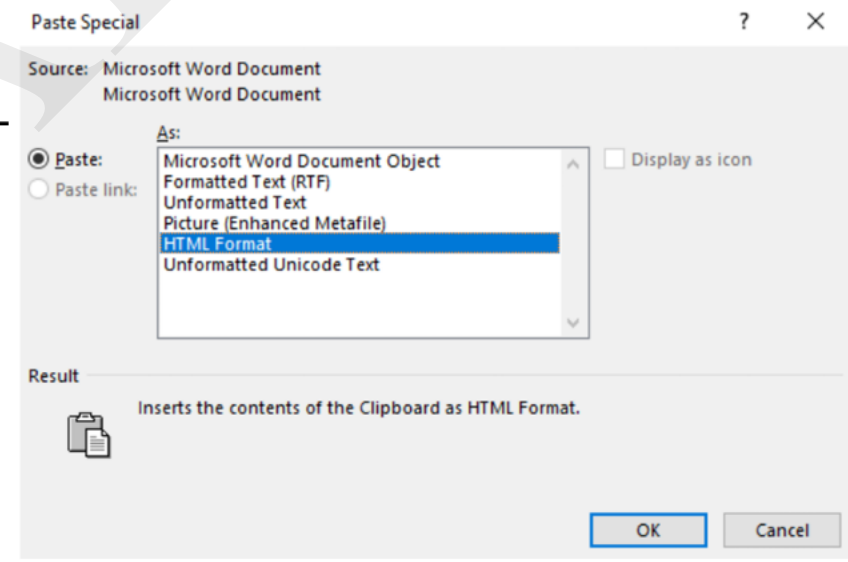
1. Local Area Network → Home, office, etc.
2. Wide Area Network
3. Peer-to-Peer Network
4. Global Network

NETWORK TYPE	FULL FORM	EXAMPLES	KEY FEATURES
PAN	Personal Area Network	Bluetooth, USB tethering, AirDrop	Covers a small area (around 10 meters), personal device connection
LAN	Local Area Network	Office network, Home Wi-Fi	High speed, low latency, limited to buildings or campuses
MAN	Metropolitan Area Network	City-wide cable networks, campus interlinks	Covers a city or large campus, medium speed, managed by telecoms or ISPs
WAN	Wide Area Network	The Internet, Bank ATM networks	Covers countries/continents, slower than LAN, uses leased telecom lines
WLAN	Wireless Local Area Network	Wi-Fi in homes, cafes	Wireless version of LAN, connects devices via routers
CAN	Campus Area Network	University campuses, Military bases	Larger than LAN, smaller than MAN; interconnects multiple LANs
SAN	Storage Area Network	Data centers, backup systems	High-speed network to connect storage devices, improves storage access
VPN	Virtual Private Network	Remote secure access to corporate networks	Creates secure connection over the internet, encrypts data
HAN	Home Area Network	Smart TVs, computers, smartphones at home	Designed for homes, combines wired and wireless technologies

66. What is the shortcut key to open 'Paste Special' dialogue box in Microsoft Word?

माइक्रोसॉफ्ट वर्ड में 'पेस्ट स्पेशल' डायलॉग बॉक्स खोलने की शॉर्टकट कुंजी क्या है?

1. Ctrl + Alt + C
2. Alt+E+S → also Ctrl + Alt + V & Alt + H + V + S
3. Ctrl + Alt + P
4. Ctrl + V → Paste



67. How many megabytes are equal to 1 gigabyte?

1 गीगाबाइट कितने मेगाबाइट के बराबर होते हैं?

1. 1048
2. 1024
3. 1052
4. 1042

68. In the field of computers and Internet, what does W3C stand for?

कंप्यूटर और इंटरनेट के क्षेत्र में W3C का क्या अर्थ है?

1. World Wide Web Consortium
2. World Wide Web Commission
3. World Wide Web Centre
4. World Wide Web Content

--	Description
Founded	1994
Founder	Tim Berners-Lee (inventor of the World Wide Web)
Headquarters	MIT (USA), ERCIM (Europe), Keio University (Japan)
Main Role	Develops web standards and protocols (HTML, CSS, XML, etc.)
Goal	Ensure long-term growth, accessibility, and interoperability of the Web

W3C

69. The National Informatics Centre (NIC) was established in:

राष्ट्रीय सूचना विज्ञान केन्द्र (एनआईसी) की स्थापना कब हुई थी?

1. 1978
2. 1979
3. 1976
4. 1977

70. Which of the following options defines Operating System?

निम्नलिखित में से कौन सा विकल्प ऑपरेटिंग सिस्टम को परिभाषित करता है?

1. It is a software that is used to convert source program instructions to set programs.
2. It is a set of programs that controls the way a computer works and runs other programs.
3. It is a set of programs used to convert high level language to low level language.
4. It is the actual way of working on computers.

71. In Excel, what shortcut key is used to fill the selected cell with active cells to the right?

एक्सेल में, चयनित सेल को दाईं ओर सक्रिय सेल से भरने के लिए किस शॉर्टकट कुंजी का उपयोग किया जाता है?

1. Ctrl + R
2. Ctrl + V
3. Ctrl + S → Save
4. Ctrl + D → to fill downside from the active cell

72. Which of the following is NOT an operating system?

निम्नलिखित में से कौन ऑपरेटिंग सिस्टम नहीं है?

1. Mac
2. Linux
3. Windows
4. Intel

73. Which of the following groups consists of only output devices?

निम्नलिखित में से किस समूह में केवल आउटपुट डिवाइस शामिल हैं?

1. Scanner, printer and monitor
2. Keyboard, printer and monitor
3. Mouse, printer and monitor
4. Plotter, printer and monitor

74. Desktop computers, laptop computers, tablets and smartphones are different types of:

डेस्कटॉप कंप्यूटर, लैपटॉप कंप्यूटर, टैबलेट और स्मार्टफोन विभिन्न प्रकार के होते हैं:

1. mainframe computers
2. super computers
3. mini computers
4. microcomputers

Type of Computer	Examples	Common Uses
Supercomputer	PARAM Siddhi, El Capitan, Fugaku	Weather forecasting, nuclear research, scientific simulations
Mainframe Computer	IBM Z Series, UNIVAC	Banking, airline reservations, government data processing
Minicomputer	PDP-11, VAX	Manufacturing, small business servers, academic departments
Microcomputer	Desktop PC, Laptop	Personal use, office work, gaming, browsing
Workstation	HP Z Series, Dell Precision	CAD, 3D modeling, video editing, software development
Server	Dell PowerEdge, HP ProLiant	Hosting websites, managing networks, file storage
Embedded System	Microcontrollers in washing machines, ATMs, smart TVs	Specific control tasks in appliances and devices
Tablet	iPad, Samsung Galaxy Tab	Reading, browsing, casual gaming, video streaming
Smartphone	iPhone, Samsung Galaxy	Communication, mobile apps, photography, social media
Hybrid Computer	ICU monitors, petrol pump systems	Combines features of analog and digital computers

75. A shared network within an organisation to provide connectivity to its staff is:

किसी संगठन के भीतर अपने कर्मचारियों को कनेक्टिविटी प्रदान करने के लिए एक साझा नेटवर्क है:

1. extranet
2. internet
3. intranet
4. telnet

- Intranet – private network used within an organization
- Extranet – an extension of the internet accessible to authorised external users
- Internet – global network connecting millions of pvt, public and academic networks
- Telnet – protocol used to access remote computers over the internet or a LAN

76. Which of the following is INCORRECT?

निम्नलिखित में से कौन सा गलत है?

1. 1MB=2^{10} KB → 1024
2. 1 GB = 2^{30} bytes
3. 1GB= 2^{20} bytes
4. 1MB=2^{23} bit

1 MB = 1024 KB × 1024 Bytes -> 2^{20} Bytes

1 Byte = 8 bit -> 2^{20} Bytes = 2^{23} bits

2^3

77. Which software is more useful for presentation in a classroom?

कक्षा में प्रस्तुतिकरण के लिए कौन सा सॉफ्टवेयर अधिक उपयोगी है?

1. Microsoft Access → database
2. Microsoft Excel → spreadsheet software
3. Microsoft Power Point
4. Microsoft Word → word processing

78. What was the base of first generation computer systems?

प्रथम पीढ़ी के कंप्यूटर सिस्टम का आधार क्या था?

1. Transistor based
2. Vacuum tube based
3. Integrated Circuit based
4. VLSI microprocessor based

- Generations of Computer:-

1. First Generation:-

   Time – 1942-45

   Hardware – Vacuum tubes

   Memory – Magnetic drums

   Language – Machine language

   Examples – EDVAC, UNIVAC, ENIAC, EDSAC

2. Second generation computers:-

   Time – 1956-64

   Hardware – Transistors

   Memory – Magnetic tapes/ cores

   Language – Assembly language, High level languages like FORTRAN, COBOL

   Examples – IBM 700/ IBM 7030

3. Third generation:-

   Time – 19665-75

   Hardware – Integrated chips

   Memory – RAM & disks

   Language – C, C++, Java, SQL

   Examples – CRAY -1, IBM 360, etc.

4. Fourth generation:-

   Time – 1976-1989

   Hardware – LSI & VLSI → Large Scale Integration
   → Very Large Scale Integration

DOWNLOAD - PARMAR ACADEMY APP YOUTUBE - PARMAR SSC TELEGRAM - PARMAR SSC

Memory – All primary, secondary storage devices

Language – SQL, ORACLE

Examples – All pcs & desktops etc

5. Fifth generation:–

Time – 1990 – till date

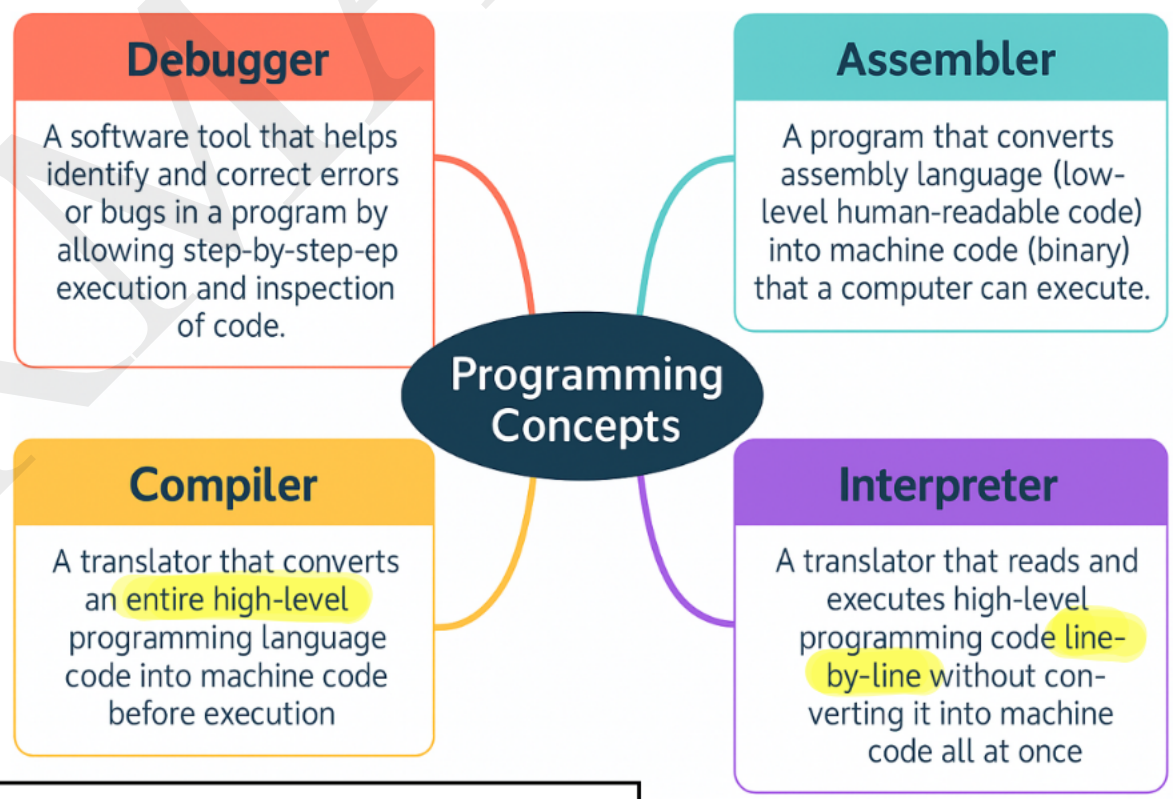
Hardware – ULSI (Ultra Large Scale Integration)

Chief Development – Artificial intelligence, Robotics & Nano science

79. A high level source program must be translated first into a form that the machine can understand. This is done using a software called the:

उच्च स्तरीय स्रोत प्रोग्राम को पहले ऐसे रूप में अनुवादित किया जाना चाहिए जिसे मशीन समझ सके। यह एक सॉफ्टवेयर का उपयोग करके किया जाता है जिसे कहा जाता है:

1. debugger
2. assembler
3. compiler
4. controller



80. The Speed of a microprocessor is known as:

माइक्रोप्रोसेसर की गति को इस रूप में जाना जाता है:

1. Cycle Speed
2. Mega Speed
3. Clock Speed
4. Bit Rate

81. Which of the following web browsers is NOT a proprietary software?

निम्नलिखित में से कौन सा वेब ब्राउज़र मालिकाना सॉफ्टवेयर नहीं है?

1. Internet Explorer
2. Mozilla Firefox → open source
3. Safari
4. Opera

82. Which of the following is NOT a type of social networking application?

निम्नलिखित में से कौन सा सोशल नेटवर्किंग एप्लीकेशन का प्रकार नहीं है?

1. Haptic
2. Twitter
3. LinkedIn
4. Facebook

83. What type of satellite is APPLE?

एप्पल किस प्रकार का उपग्रह है?

1. Earth observation satellite
2. Remote sensing satellite
3. Communication satellite
4. Meteorology satellite

84. What does BHIM stand for:

BHIM का क्या अर्थ है:

1. Bheem Intraface for Mobile
2. Bharat Internet for Money
3. Bharat Interface for Money
4. Bheem Interface for Mobile

Short Form	Full Form	Purpose / Relevance
BHIM	Bharat Interface for Money	UPI-based mobile payment app by NPCI
UPI	Unified Payments Interface	Real-time inter-bank transaction system
NPCI	National Payments Corporation of India	Organization behind UPI, IMPS, BHIM, RuPay etc.
IMPS	Immediate Payment Service	Instant fund transfer system via mobile or internet banking
NEFT	National Electronic Funds Transfer	One-to-one bank transfer (batch-processed)
RTGS	Real-Time Gross Settlement	High-value instant bank transfers (₹2 lakh and above)
QR Code *	Quick Response Code	Used for scanning and making instant payments
Aadhaar	Aadhaar Enabled Payment System (AEPS)	Banking through biometric and Aadhaar authentication
POS	Point of Sale	Device used to process card payments at stores
OTP	One-Time Password	Temporary password used for secure digital transactions
VPA *	Virtual Payment Address	UPI ID used for sending and receiving money

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85. The full form of MB is:

एमबी का पूर्ण रूप है:

1. Microbyte
2. macrobyte
3. minibyte
4. Megabyte

86. The speed of a CPU can measured in

सीपीयू की गति मापी जा सकती है

1. Horsepower
2. Bits per second (Bps)
3. Megahertz (MHz)
4. Lux

↳also Hz & GHz

87. The term 'byte' was coined by:

'बाइट' शब्द किसके द्वारा गढ़ा गया था:

1. Vint Cerf
2. Steve Jobs
3. Werner Buchholz
4. Larry Page

- Bit word coined by – John Tukey

88. The PARAM 8000 supercomputer was released in which year?

PARAM 8000 सुपरकंप्यूटर किस वर्ष जारी किया गया था?

1. 1988
2. 2003
3. 1991
4. 1996

89. With whom is the Statement of Intent (SOI) signed by NITI Aayog as part of the Atal Innovation Mission to open the Digital Disha Programme?

डिजिटल दिशा कार्यक्रम शुरू करने के लिए अटल इनोवेशन मिशन के हिस्से के रूप में नीति आयोग ने किसके साथ आशय पत्र (एसओआई) पर हस्ताक्षर किए हैं?

1. Adobe
2. Google
3. Microsoft
4. Facebook

90. In the e-mail address India@solu.edu, India is the:

ई-मेल पता India@solu.edu में भारत है:

1. User name
2. Password
3. Domain name
4. Server name

- Email address –> username @ domain name

91. Which one of the following software applications is NOT a part of Microsoft Office?

निम्नलिखित में से कौन सा सॉफ्टवेयर अनुप्रयोग माइक्रोसॉफ्ट ऑफिस का हिस्सा नहीं है?

1. Excel
2. Word
3. Acrobat Reader
4. PowerPoint

- Microsoft office:–

Excel, Word, Powerpoint, Access, One Note, Outlook, Publisher

92. Real-time video chatting uses the following internet application:

वास्तविक समय वीडियो चैटिंग निम्नलिखित इंटरनेट एप्लिकेशन का उपयोग करती है:

1. Internet Publish Chat (IPC)
2. Internet Broadcast Chat (IBC)
3. Internet Transfer Chat (ITC)
4. Internet Relay Chat (IRC)

93. Which function key is used to change the name of a specific file?

किसी विशिष्ट फ़ाइल का नाम बदलने के लिए किस फ़ंक्शन कुंजी का उपयोग किया जाता है?

1. ALT + S
2. F4
3. CTRL+E
4. F2 → to rename a file

- In MS Word:–

Ctrl + L – Left alignment

Ctrl + E – Center alignment

Ctrl + R – Right alignment

Ctrl + J – Justify

- Windows key (#) + E –> opens file explorer
- Windows key (#) + R –> opens Run Dialogue box

94. What does ASCII stand for?

ASCII का क्या अर्थ है?

1. Asian Schema Code for Information Interchange
2. Asian Standard Code for Internet Interchange
3. American Standard Code for Information Interchange
4. American Standard Code for Internet Information

95. The full form of BIOS is:

BIOS का पूर्ण रूप है:

1. Browser Input Operating System
2. Basic Input/Output System
3. Basic Input Operating System
4. Browser Input/Output System

96. 100 nibbles are equal to ____ bits.

100 निबल्स ___ बिट्स के बराबर हैं।

1. 256
2. 400 → 1 Nibble = 4 bits
3. 512
4. 200

97. If you are using Ctrl + A keys in MS Word, what are you trying to do?

यदि आप MS Word में Ctrl + A कुंजियों का उपयोग कर रहे हैं, तो आप क्या करने का प्रयास कर रहे हैं?

1. Close the window
2. Copy all text in the file
3. Paste text
4. Select all text in the file

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98. Where is the cache memory located?

कैश मेमोरी कहां स्थित है?

1. CPU
2. RAM
3. CU
4. monitor

99. The cell with dark boundary in _____ is called active cell.

_____ में अँधेरी सीमा वाली कोशिका को सक्रिय कोशिका कहा जाता है।

1. MS Excel
2. MS PowerPoint
3. MS DOS
4. MS Word

100 Who among the following is one of the founders of Google?

निम्नलिखित में से कौन गूगल के संस्थापकों में से एक है?

1. Jon Koum
2. Larry Page
3. Jerry Yang
4. Mark Zuckerberg

101 Which one of the following is not a hardware component of a computer?

निम्नलिखित में से कौन सा कंप्यूटर का हार्डवेयर घटक नहीं है?

1. Printer
2. Keyboard
3. Memory
4. Mouse

102 Which one of the following statements is correct about a computer?

कंप्यूटर के बारे में निम्नलिखित में से कौन सा कथन सही है?

1. An electronic device that stores, retrieves and processes data.
2. A computer is composed of only hardware.
3. A computer is composed of only software.
4. A computer can organise all information on its own.

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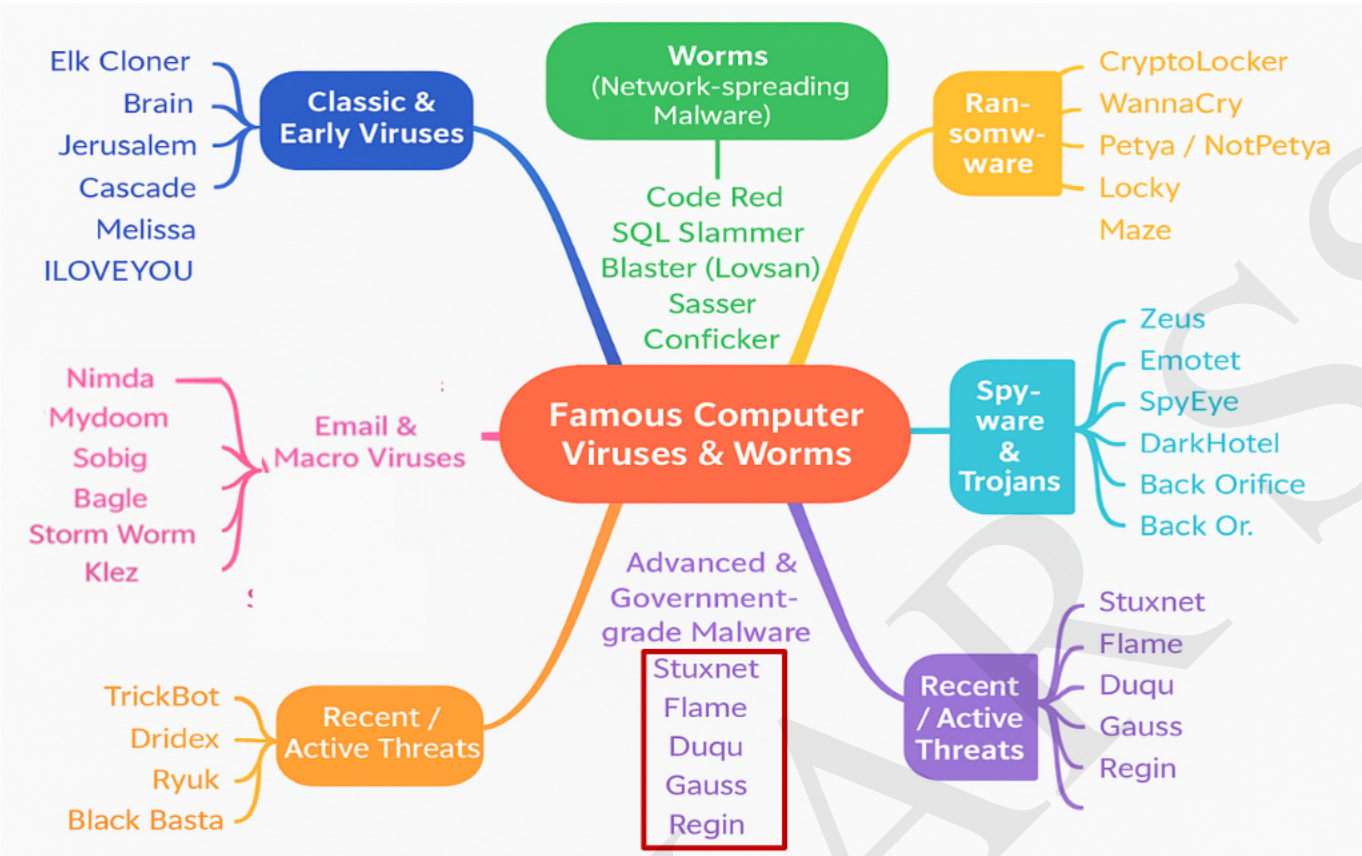
103 Which one of the following is not a computer virus but is, basically, a computer language?

निम्नलिखित में से कौन सा एक कंप्यूटर वायरस नहीं है, लेकिन मूलतः एक कंप्यूटर भाषा है?

1.Python

2. Conficker
3. Code Red
4. Sasser

→ computer virus



104 Four items connected with computers are listed, out of which three are alike in some manner and one is different.

Select the odd one.

कंप्यूटर से जुड़ी चार वस्तुएँ सूचीबद्ध हैं, जिनमें से तीन किसी न किसी तरह से समान हैं और एक अलग है। विषम को चुनें।

1. Flash Drive
2. CD
3. Monitor
4. Hard disk

→ Storage device

→ output device

105 Who designed the 'first' small computer for home use?

घरेलू उपयोग के लिए 'पहला' छोटा कंप्यूटर किसने डिजाइन किया?

1. Steve Wozniak
2. Chuck Peddl
3. Steve Leininger
4. John Blankenbaker

- first computer virus –> Creeper virus

106 IBM 370 was a ___ generation computer.

आईबीएम 370 एक ___ पीढ़ी का कंप्यूटर था।

1. 3rd
2. 2nd
3. 1st
4. 4th

107 Which among the following is NOT an extension for a video file?

निम्नलिखित में से कौन सा वीडियो फ़ाइल का एक्सटेंशन नहीं है?

1. .avi
2. .mov
3. .jpeg → image extension
4. .mp4

108 Which one of the following is called a super - network or meta - network?

निम्नलिखित में से किसे सुपर-नेटवर्क या मेटा-नेटवर्क कहा जाता है?

1. MAN
2. LAN
3. Internet
4. Server

109 Which one of the following is NOT an Office Package ?

निम्नलिखित में से कौन सा एक ऑफिस पैकेज नहीं है?

1. WPS
2. Microsoft office 2010
3. Libre
4. Quantum

110 Google Drive, Sky Drive and Dropbox are perfect examples of:

गूगल ड्राइव, स्काई ड्राइव और ड्रॉपबॉक्स इनके आदर्श उदाहरण हैं:

1. internet computing
2. virtual drives
3. virtual reality
4. cloud storage services

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- Cloud Storage Services:–

  Dropbox, Google Drive, OneDrive, Amazon S3

111 What is the correct full form of "VIRUS" in computer programming?

कंप्यूटर प्रोग्रामिंग में "VIRUS" का सही पूर्ण रूप क्या है?

1. Vital Inter Change Result Until Source
2. Vital Information Resources Under Seize
3. Vital Information Recognize Search
4. Vital Information Record User Seize

112 Which of the following is NOT a computer programming language?

निम्नलिखित में से कौन सी कंप्यूटर प्रोग्रामिंग भाषा नहीं है?

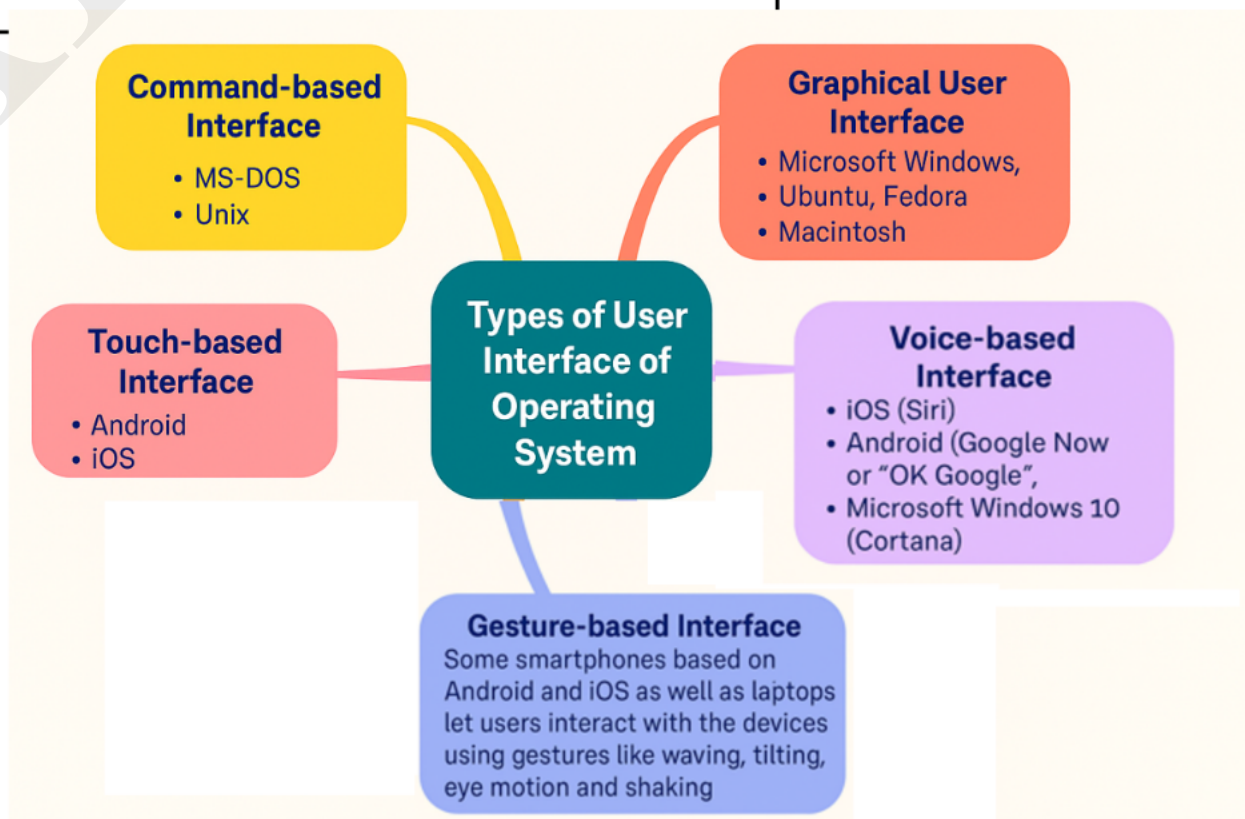
1.Python
2. Java
3. C++++
4. Swift

113 MS DOS is an operating system that has a /an:

एमएस डॉस एक ऑपरेटिंग सिस्टम है जिसमें /an है:

1. Command Line Interface
2. Voice Line Interface
3. Open Source Origin
4. Graphical User Interface

→ Microsoft Disc Operating system



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114 Which was the first social media site?

पहली सोशल मीडिया साइट कौन सी थी?

1. LinkedIn
2. Six Degrees
3. Myspace
4. Friendster

115 As of March 2025, name the head of Instagram who oversees all functions of the business including engineering, production and operations.

मार्च 2025 तक, इंस्टाग्राम के उस प्रमुख का नाम बताएं जो इंजीनियरिंग, उत्पादन और संचालन सहित व्यवसाय के सभी कार्यों की देखरेख करेगा।

1. Steve Wozniak
2. Ronald Wayne.
3. Adam Mosseri
4. Mark Zuckerberg

116 What is the full form of DPI with regard to digital images?

डिजिटल छवियों के संबंध में DPI का पूर्ण रूप क्या है?

1. Data per inch
2. Dots per inch
3. Decimal per inch
4. Digits per inch

- Basic unit of Image – Pixel

117 What are the peripheral devices?

परिधीय उपकरण क्या हैं?

1. These devices help in storing and analysing data.
2. Those that help in calculation.
3. These are internal or external device that connect directly to a computer but do not contribute to the computer's primary functions.
4. Those that connect computer to the internet.

118 Which of the following is an advantage of LAN?

निम्नलिखित में से कौन सा LAN का लाभ है?

1. sharing peripherals
2. saving all data
3. backing up data
4. automatic pricing of data

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119 In Microsoft Word 2016, what happens when we press the keyboard shortcut 'Ctrl + E'?

माइक्रोसॉफ्ट वर्ड 2016 में, जब हम कीबोर्ड शॉर्टकट 'Ctrl + E' दबाते हैं तो क्या होता है?

1. Selected text is made bold
2. A pop-up prompts you to open a new file
3. Selected text is cut
4. Selected text is centre aligned

- Left alignment ->
- Right alignment ->
- Center alignment ->
- Justify ->

120 Which of the following devices/interfaces did Douglas Engelbart invent?

निम्नलिखित में से किस उपकरण/इंटरफ़ेस का आविष्कार डगलस एंजेलबार्ट ने किया था?

1. Compact disc
2. USB port
3. Floppy disk
4. Computer mouse

121 Non-volatile memory is a type of computer memory that can retain stored information even when the computer is:

नॉन-वोलेटाइल मेमोरी एक प्रकार की कंप्यूटर मेमोरी है जो कंप्यूटर के चालू रहने पर भी संग्रहीत जानकारी को बनाए रख सकती है:

1. intermittently powered
2. not processed
3. powered
4. not powered

ROM & other Storage devices

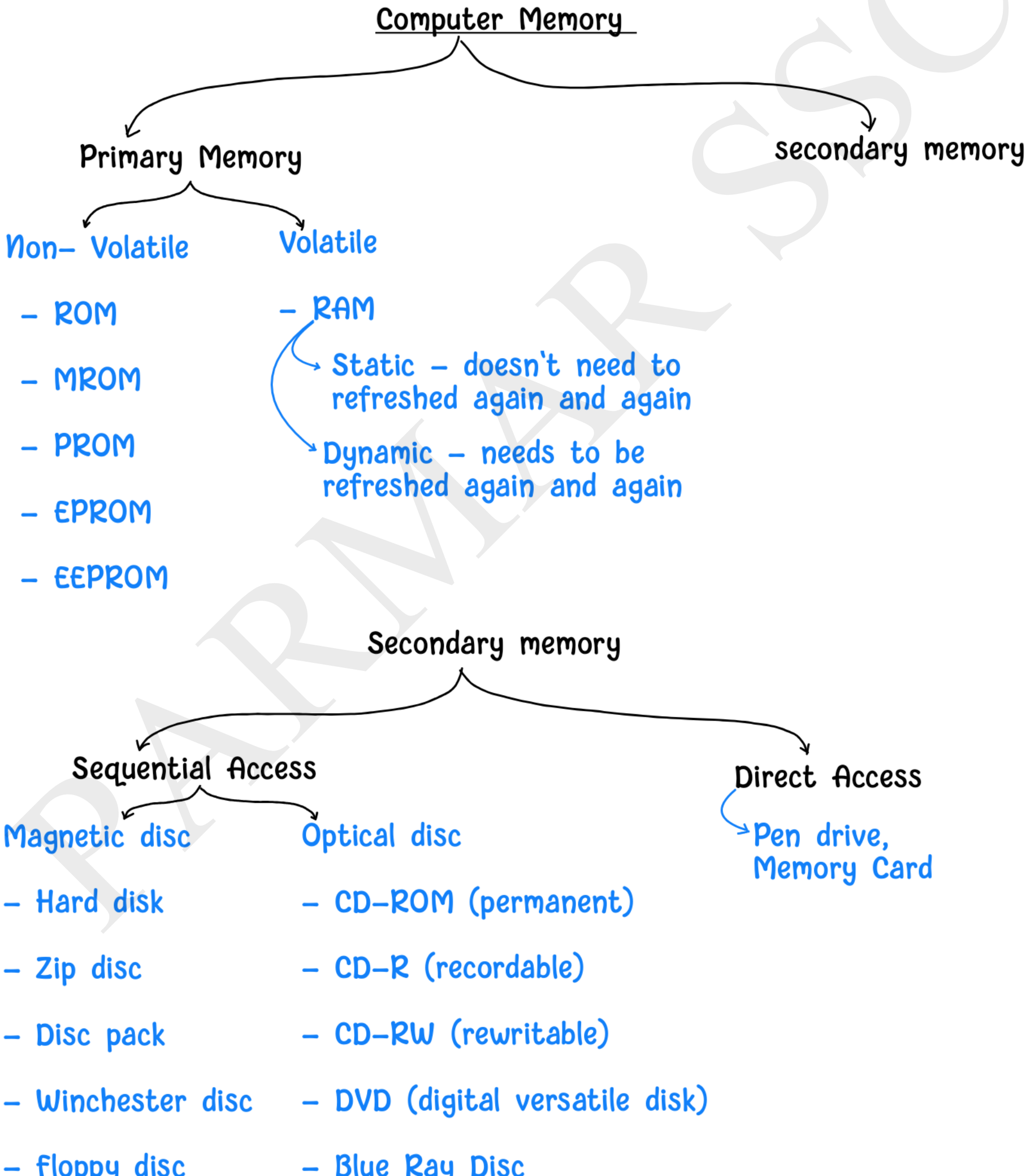
- Volatile memory -> needs power to retain memory

  Example - RAM

122 Which of the following is a volatile memory?

निम्नलिखित में से कौन सी अस्थिर मेमोरी है?

1. RAM
2. PROM
3. EPROM
4. ROM



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123 In Computer terminology, what is the full form of IDN?

कम्प्यूटर शब्दावली में IDN का पूर्ण रूप क्या है?

1. Internal Digital Networks
2. Internationalized Domain Name
3. Input Distributed Networks
4. Intertwined Disc Networks

124 Which of the following is the system designed to prevent unauthorised access to or from a private network?

निम्नलिखित में से कौन सी प्रणाली निजी नेटवर्क पर अनाधिकृत पहुंच को रोकने के लिए डिज़ाइन की गई है?

1. Repeater → used to boost signal strength
2. Packet filter
3. Bridge → connects different LANs
4. Firewall → in both hardware & Software forms

125 Which of the following is a graphical web browser based on the WebKit browser engine?

निम्नलिखित में से कौन सा वेबकिट ब्राउज़र इंजन पर आधारित एक ग्राफिकल वेब ब्राउज़र है?

1. Appy Pie Design
2. Adobe Illustrator
3. Safari
4. CorelDRAW

126 A group of four bits is called a:

चार बिट्स के समूह को कहा जाता है:

1. megabyte
2. nibble
3. byte
4. kilobyte

127 Which of the following is NOT an internal part of the computer?

निम्नलिखित में से कौन सा कंप्यूटर का आंतरिक भाग नहीं है?

1. RAM
2. Flash drive
3. Video card
4. Motherboard

Component	Description
Motherboard	The main circuit board that connects all components
CPU (Processor)	Central Processing Unit – the "brain" that processes all instructions
RAM (Memory)	Temporary memory used by the system to run programs and processes
Hard Drive / SSD	Stores data, software, operating system, and files
Power Supply Unit (PSU)	Converts electricity to power all components
GPU (Graphics Card)	Renders images, videos, and animations (especially for gaming/design)
Optical Drive	Reads/writes data to CDs, DVDs (optional in modern PCs)
Cooling Fan / Heat Sink	Keeps the CPU and GPU from overheating
BIOS / CMOS Chip	Stores firmware used to start the system and manage basic settings
Expansion Slots (PCIe)	Allows additional cards like sound cards, network cards, etc.
Cables & Connectors	Connect internal components (e.g., SATA, power cables)
Internal Speaker	Gives basic system beeps (POST beeps)

Internal parts of a computer

128 Operating system of a computer is an example of:

कंप्यूटर का ऑपरेटिंग सिस्टम इसका एक उदाहरण है:

1. Application software
2. System software
3. Hardware
4. Application platform

129 What is URL? → Uniform Resource Locator

यूआरएल क्या है?

1. A web browser
2. Searching engine
3. Address of the web page displayed on the internet
4. A computer software

130 Which part of a CPU coordinates all the functions of a computer?

सीपीयू का कौन सा भाग कंप्यूटर के सभी कार्यों का समन्वय करता है?

1. Motherboard
2. Keyboard
3. Control unit
4. Mouse

131 In Computer terminology, ALU stands for:

कंप्यूटर शब्दावली में, ALU का अर्थ है:

1. Arithmetic Logic Unit
2. Active Load Unit
3. Air Lock Unit
4. Application Logical Unit

132 A/an is required for booting a computer.

कंप्यूटर को बूट करने के लिए A/an की आवश्यकता होती है।

1. Compiler
2. Assembler
3. Operating system
4. Translator

133 In Microsoft Word 2016, to remove paragraph formatting, one must press the shortcut keys.

माइक्रोसॉफ्ट वर्ड 2016 में पैराग्राफ़ फ़ॉर्मेटिंग हटाने के लिए, शॉर्टकट कुंजियाँ दबानी होंगी।

1. Ctrl + M → to indent a paragraph
2. Ctrl + Q
3. Ctrl + J
4. Ctrl + Y → Redo

• Ctrl + Z – Undo

134 The main page of a website or a browser is called:

किसी वेबसाइट या ब्राउज़र के मुख्य पृष्ठ को क्या कहा जाता है:

1. Master page
2. Home page
3. Grand page
4. First page

135 The process of taking out stored results out of physical memory of Computers is known as:

कंप्यूटर की भौतिक मेमोरी से संग्रहीत परिणामों को बाहर निकालने की प्रक्रिया को क्या कहा जाता है?

1. input process
2. processing
3. programming
4. output process

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136 Which of the following is NOT a part of auxiliary memories in a Computer system?

निम्नलिखित में से कौन सा कंप्यूटर सिस्टम में सहायक मेमोरी का हिस्सा नहीं है?

1. Floppy
2. Magnetic tapes
3. PROM
4. CD-ROM

secondary memory

137 What does NIU stand for in information technology?

सूचना प्रौद्योगिकी में NIU का क्या अर्थ है?

1. Network Interface Unit
2. Networking Internal Unit
3. National Information Usage
4. Nominal Internal Unit

138 What is 'UBUNTU'?

'उबंटू' क्या है?

1. Operating system
2. Malware
3. External hard drive
4. Web Browser

139 In the domain of computers and the internet, what is the full form of URL?

कंप्यूटर और इंटरनेट के क्षेत्र में URL का पूर्ण रूप क्या है?

1. Unique Resource Location
2. Unique Revoked Location
3. Uniform Resource Locator
4. Universal Resource Locator

140 Which of the following is NOT a Google product?

निम्नलिखित में से कौन सा गूगल उत्पाद नहीं है?

1. Gmail
2. iTunes → apple
3. Blogger
4. YouTube

141 Which of the following is an incorrect pair of abbreviation and its full form?

निम्नलिखित में से कौन सा संक्षिप्त नाम और उसके पूर्ण रूप का गलत जोड़ा है?

A. DBMS – Data Base Management System
B. URL – Uniform Reserve Locator
C. RAM – Random Access Memory
D. FAX – Facsimile

142. ESS is a computer-based system that allows users to transform enterprise data.
ESS stands for:

ईएसएस एक कंप्यूटर-आधारित प्रणाली है जो उपयोगकर्ताओं को एंटरप्राइज़ डेटा कं बदलने की अनुमति देती है। ईएसएस का मतलब है:

A. Executive Support System
B. Executive Series System
C. Executive Senior System
D. Executive Service System

143. A computer monitor is also known by the name:

कंप्यूटर मॉनिटर को इस नाम से भी जाना जाता है:

A. CCTV → Closed circuit telivision
B. LED → Light emitting diode
C. CPU
D. VDU

- Types of monitors:-

- CRT – Cathode Ray tube

- TFT – Thin film Transistor

- LCD – Liquid Crystal Display

144. What are the shortcut keys to paste the copied text?

कॉपी किये गये टेक्स्ट को पेस्ट करने के लिए शॉर्टकट कुंजियाँ क्या हैं?

A. Ctrl + C → Copy
B. Ctrl + X → Cut
C. Ctrl + V → or Shift + Insert
D. Ctrl + P → Paste

145. Four words have been given, out of which three are alike in some manner and one is different. Select the odd one.
Hard disk, RAM, Mouse, Motherboard.

चार शब्द दिए गए हैं, जिनमें से तीन किसी तरह से समान हैं और एक अलग है। बेजोड़ का चयन करें।
हार्ड डिस्क, रैम, माउस, मदरबोर्ड।

A. Hard disk
B. Motherboard
C. RAM
→ internal parts
D. Mouse → Peripheral device

146. In the context of computing, a 'spider' is a/an:

कंप्यूटिंग के संदर्भ में, 'स्पाइडर' एक है:

A. search engine
B. application for viewing websites
C. program that catalogues websites
D. hacker who breaks into a corporate computer system

147. Which of the following keyboard shortcuts will you use to switch to a previously opened program?

पहले से खोले गए प्रोग्राम पर स्विच करने के लिए आप निम्नलिखित में से किस कीबोर्ड शॉर्टकट का उपयोग करेंगे?

A. Ctrl + Home → Move to document starting
B. Alt + Shift + Tab
C. Alt+Tab → Switch to forward/ next open program
D. Ctrl + N → To open new document

148. What is the correct full form of MPEG from below?

नीचे दिए गए MPEG का सही पूर्ण रूप क्या है?

A. Micro Pictures Expert Group
B. Many Pictures Expert Group
C. Moving Picture Experts Group
D. Motion Pictures Expert Group

149. Which among the following is the largest unit of memory of a computer system?

निम्नलिखित में से कौन सी कंप्यूटर सिस्टम की मेमोरी की सबसे बड़ी इकाई है?

A. Exabyte
B. Yottabyte
C. Petabyte
D. Zetabyte

150. Which of the following is NOT an output device for a computer?

निम्नलिखित में से कौन सा कंप्यूटर के लिए आउटपुट डिवाइस नहीं है?

A. Printer
B. Scanner
C. Projector
D. Monitor

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151. What is the full form of RDRAM?

आरडीआरएएम का पूर्ण रूप क्या है?

A. Rambus Dynamic Random Access Memory
B. Read Disc Random Access Memory
C. Read Dynamic Random Arrays Material
D. Removable Disc Read Access Module

152. What is a Visual Display Unit (VDU)?

विज़ुअल डिस्प्ले यूनिट (VDU) क्या है?

A. Storage unit
B. Monitor
C. Server
D. System memory

153. What is the full form of DOS?

डॉस का पूर्ण रूप क्या है?

A. Device Outsourcing System
B. Device Operating System
C. Different Operating System
D. Disk Operating System

154. Which technology is used to provide high speed internet access over traditional modem lines?

पारंपरिक मॉडेम लाइनों पर उच्च गति इंटरनेट पहुंच प्रदान करने के लिए किस प्रौद्योगिकी का उपयोग किया जाता है?

A. ADSL → Asymmetrical Digital Subscriber line
B. VDU
C. LAN
D. Routers

155. Which of these is NOT a computer characteristic?

इनमें से कौन सी कंप्यूटर विशेषता नहीं है?

A. Intelligence quotient
B. Data storage
C. Speed
D. Accuracy

Characteristic	Description
Speed	Can perform millions of instructions per second
Accuracy	Delivers error-free results if input is correct
Automation	Can perform tasks automatically without user intervention
Diligence	Doesn't suffer from fatigue or boredom; works continuously
Versatility	Can perform a wide range of tasks – calculations, editing, designing, etc.
Multitasking	Can run multiple applications at the same time
Storage	Stores large amounts of data and instructions for long periods
Communication	Enables digital communication via internet, email, networks
No IQ	Performs only as instructed; lacks decision-making ability
Reliability	Operates consistently over time with minimal failure
Memory	Remembers data, programs, and results even after the task is over

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विशेषता	विवरण
गति	प्रति सेकंड लाखों निर्देशों का पालन कर सकता है
सटीकता	यदि इनपुट सही है तो त्रुटि-रहित परिणाम देता है
स्वचालन	उपयोगकर्ता के हस्तक्षेप के बिना स्वचालित रूप से कार्य कर सकता है
परिश्रम	थकान या ऊब से ग्रस्त नहीं होता; लगातार काम करता है
बहुमुखी प्रतिभा	कई तरह के कार्य कर सकता है - गणना, संपादन, डिजाइनिंग, आदि।
मल्टीटास्किंग	एक ही समय में कई एप्लिकेशन चला सकता है
भंडारण	लंबी अवधि के लिए बड़ी मात्रा में डेटा और निर्देश संग्रहीत करता है
संचार	इंटरनेट, ईमेल, नेटवर्क के माध्यम से डिजिटल संचार सक्षम करता है
कोई IQ नहीं	केवल निर्देशानुसार कार्य करता है; निर्णय लेने की क्षमता का अभाव है
विश्वसनीयता	न्यूनतम विफलता के साथ समय के साथ लगातार संचालित होता है
स्मृति	कार्य समाप्त होने के बाद भी डेटा, प्रोग्राम और परिणाम याद रखता है

156. In Computer field, What does LIFO stand for?

कम्प्यूटर क्षेत्र में LIFO का क्या अर्थ है?

A. Last-In-First-Out
B. Left-In-First-Out
C. Last-In-Finish-Out
D. Lost-In-First-Out

- fIFO – first in first out

157. GPRS stands for:

जीपीआरएस का तात्पर्य है:

A. Guiding Packet Radio Systems
B. General Popular Radio Systems
C. General Packet Radio Services
D. General Payment Radio Services

158. What does CDMA stand for?

सीडीएमए का क्या अर्थ है?

A. Code Division Maximum Access
B. Code Division Multiple Access
C. Core Division Multiple Access
D. Core Division Maximum Access

159. Which is not a web browser from the following?

निम्नलिखित में से कौन सा वेब ब्राउज़र नहीं है?

A. Opera
B. Mozilla Firefox
C. Google → search engine
D. Safari

- List of web browsers:–

Mosaic, Netscape Navigator, Internet explorer, Lynx, Mozilla firefox, Chrome (google), Microsoft Edge, Safari, Opera, Sea Monkey , Maxathon, Vivaldi, Tor, Dooble, Brave, Amaya, UC Browser

160. Which of the following is an example of a spreadsheet?

निम्नलिखित में से कौन स्प्रेडशीट का उदाहरण है?

A. Microsoft Outlook
B. Microsoft Power Point
C. Microsoft Excel
D. Microsoft Word

161. SAGA-220 was developed by Indian Space Research Organization. What is SAGA-220?

SAGA-220 को भारतीय अंतरिक्ष अनुसंधान संगठन द्वारा विकसित किया गया था। SAGA-220 क्या है?

A. Pacemaker
B. Satellite
C. Super Computer
D. Missile

162. What facilitates remote login on a computer?

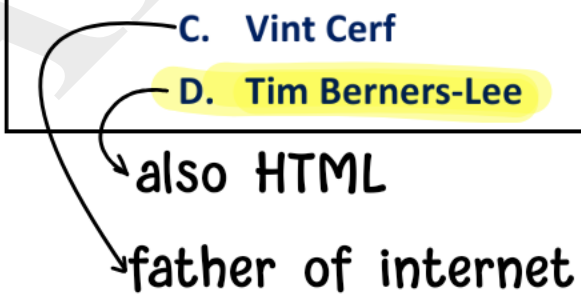
कंप्यूटर पर दूरस्थ लॉगिन की सुविधा क्या है?

A. HTTP
B. Telnet
C. FTP
D. RTP

163. Who invented 'www'?

'www' का आविष्कार किसने किया?

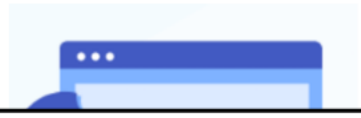
A. Robert E. Kahn
B. Charles babbage
C. Vint Cerf
D. Tim Berners-Lee



164. A small text file created by a website that is stored in the user's computer temporarily for that session is called

किसी वेबसाइट द्वारा बनाई गई एक छोटी टेक्स्ट फ़ाइल जो उस सत्र के लिए अस्थायी रूप से उपयोगकर्ता के कंप्यूटर में संग्रहीत होती है, कहलाती है

A. cache
B. bug
C. malware
D. Cookie



165. In which generation of computers were FORTRAN and COBOL languages first used?

फोरट्रान और कोबोल भाषाओं का प्रयोग सर्वप्रथम किस पीढ़ी के कम्प्यूटरों में किया गया था?

A. II Generation
B. I Generation
C. V Generation
D. IV Generation

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166. Which of the following is NOT a type of personal computer?

निम्नलिखित में से कौन सा पर्सनल कंप्यूटर का प्रकार नहीं है?

A. Mainframe computer
B. Palmtop computer
C. Laptop
D. Desktop computer

167. Video Graphics Array (VGA) is a system for displaying colour graphics. It was developed by:

वीडियो ग्राफ़िक्स ऐरे (VGA) रंगीन ग्राफ़िक्स प्रदर्शित करने की एक प्रणाली है। इसे किसने विकसित किया:

A. IBM → international business machines
B. Macintosh
C. Microsoft
D. Apple

168. Which of the following is not a high-level language?

निम्नलिखित में से कौन सी उच्च स्तरीय भाषा नहीं है?

A. C++
B. Machine language
C. Java
D. C

- BASIC – Beginners All Purpose Symbolic Instructions code
- ALGOL – Arithmetic language

169. Data processing doesn't involve:

डेटा प्रोसेसिंग में निम्नलिखित शामिल नहीं है:

A. Data manipulation
B. Data computation
C. Information management
D. Database installation

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170. The trial test of a computer or software before the commercial launch is called:

व्यावसायिक लॉन्च से पहले कंप्यूटर या सॉफ्टवेयर के परीक्षण को क्या कहा जाता है?

A. Alpha test
B. Beta test
C. Delta test
D. e-test

done internally by developers & Quality Analysis team before public release, 1st phase of testing

to remove bugs

171. What is the full form of VR in computer technology?

कंप्यूटर प्रौद्योगिकी में वी.आर. का पूर्ण रूप क्या है?

A. Virtual Reality
B. Visual Reality
C. Vocal Resonance
D. Visual Range

172. What were the names of Facebook's artificial intelligence robots that were shut down?

फेसबुक के उन कृत्रिम बुद्धिमत्ता रोबोटों के नाम क्या थे जिन्हें बंद कर दिया गया?

A. Cortana and Watson
B. Tom and Mary
C. Alexa and Siri
D. Bob and Alice

173. Who is the co-founder of Apple Computers?

एपल कंप्यूटर्स के सह-संस्थरपक कौन हैं?

A. Bill Gates
B. Paul Allen
C. Charles
D. Steve Jobs

174. Which of the following companies stopped making personal computers in 2005?

निम्नलिखित में से किस कंपनी ने 2005 में पर्सनल कंप्यूटर बनाना बंद कर दिया?

A. Asus
B. IBM
C. Dell
D. Acer

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175. Which type of computer application software is Quattro Pro?

क्वाट्रो प्रो किस प्रकार का कंप्यूटर अनुप्रयोग सॉफ्टवेयर है?

A. Spreadsheet software
B. Database software
C. Desktop publishing software
D. Word processing software

176. In a web address, the domain indicator (suffix) '.com' stands for:

वेब पते में, डोमेन सूचक (प्रत्यय) '.com' का अर्थ है:

A. computer
B. communication
C. common
D. commercial

- Important suffix:-

.edu – education

.org – organisation

.gov – government

.mil – military

.info – informative

.biz – business related

177. Which of the following languages does a computer use to process data?

कंप्यूटर डेटा को प्रोसेस करने के लिए निम्नलिखित में से किस भाषा का उपयोग करता है?

A. BASIC
B. COBOL
C. Windows
D. Binary

178. The is a simple query language used for accessing, handling and managing data in a relational database.

यह एक सरल क्वेरी भाषा है जिसका उपयोग रिलेशनल डेटाबेस में डेटा तक पहुंचने, उसे संभालने और प्रबंधित करने के लिए किया जाता है।

A. DML
B. ISO
C. SQL → Structured Query Language
D. DDL

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179. The C++ programming language was developed at AT & T Bell Laboratories in the early by Bjarne Stroustrup.

सी++ प्रोग्रामिंग भाषा का विकास एटी एंड टी बेल प्रयोगशालाओं में बजरने स्ट्रॉस्ट्रप द्वारा किया गया था।

A. 1980s
B. 1990s
C. 1960s
D. 1970s

180. In Computers, files when deleted are moved to:

कंप्यूटर में, हटाई गई फ़ाइलें निम्न स्थानों पर स्थानांतरित की जाती हैं:

A. Outbox
B. My documents
C. Recycle Bin → can be restored from it
D. Inbox

- To delete a file permanently – Shift + delete

181. Internet uses:

इंटरनेट का उपयोग:

A. telephone switching
B. circuit switching
C. packet switching → information flow in form of packets
D. telex switching

182. A domain name is a unique name given to each website on the internet. The last part of the domain name is known as a domain extension. Which of the following is a domain extension of any government website?

डोमेन नाम इंटरनेट पर प्रत्येक वेबसाइट को दिया गया एक अनूठा नाम है। डोमेन नाम के अंतिम भाग को डोमेन एक्सटेंशन के रूप में जाना जाता है। निम्नलिखित में से कौन सा किसी सरकारी वेबसाइट का डोमेन एक्सटेंशन है?

A. .net
B. .mil
C. .gov
D. .com

183. Which one of the following is NOT a web browser?

निम्नलिखित में से कौन सा एक वेब ब्राउज़र नहीं है?

A. Google Chrome
B. Wikipedia
C. Mozilla Firefox
D. Opera

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184. The internet works by using a protocol called TCP/IP. What is the full form of TCP/IP?

इंटरनेट TCP/IP नामक प्रोटोकॉल का उपयोग करके काम करता है। TCP/IP का पूरा नाम क्या है?

A. Transmission Computer Programme/Internet Protocol
B. Temporary Computer Protocol/Internet Protocol
C. Tele Computer Protocol/Internet Protocol
D. Transmission Control Protocol/Internet Protocol

185. Which one of the following determines how different programs exchange data over the internet?

निम्नलिखित में से कौन सा यह निर्धारित करता है कि विभिन्न प्रोग्राम इंटरनेट पर डेटा का आदान-प्रदान कैसे करते हैं?

A. Bluetooth
B. Email
C. URL
D. Hypertext transfer protocol

186. Which one of the following is NOT a search engine?

निम्नलिखित में से कौन सा एक खोज इंजन नहीं है?

A. Instagram
B. Google
C. Yahoo
D. Bing

- List of Search engines :–

  Yahoo, Alta Vista, Hot bot, Web crawler, Excite, Lycos, Magellan, Google, Bing, Info seek, Duck duck go, Baidu, Yandex, Ask.com, Internet archive

187. Which one of the following is NOT a wired broadband?

निम्नलिखित में से कौन सा एक वायर्ड ब्रॉडबैंड नहीं है?

A. Cable
B. Digital Subscriber Line
C. Satellite
D. Dial-up

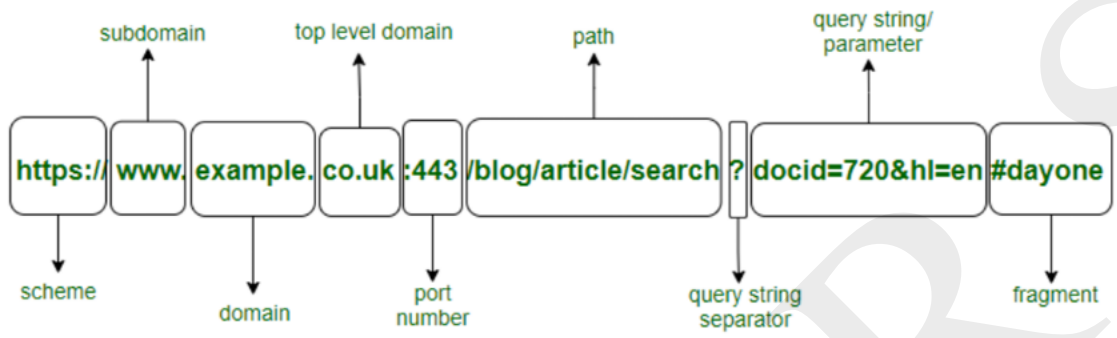
188. In the URL, https://www.d2h.com/login.php, which component identifies the path of a web page?

URL, https://www.d2h.com/login.php में, कौन सा घटक वेब पेज के पथ की पहचान करता है?

A. www.d2h.com
B. https:
C. //www
D. /login.php

Parts of a URL

URL : https://www.example.co.uk:443/blog/article/search?docid=720&hl=en#dayone



189. Which one of these is the parent company of Google?

इनमें से कौन गूगल की मूल कंपनी है?

A. Alphabet Inc.
B. Calico
C. Nest Labs
D. GV

190. What is the full form of DDL in terms of computer jargon?

कंप्यूटर शब्दावली में DDL का पूर्ण रूप क्या है?

A. Data Definition Language
B. Digital Data Logic
C. Dynamic Data Language
D. Direct Data Language

191. What are the three constituents of CPU in a computer?

कंप्यूटर में सीपीयू के तीन घटक क्या हैं?

A. Control unit, ALU, keyboard
B. Control unit, ALU, memory
C. Monitor, memory, control unit
D. Monitor, ALU, memory

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192. Mac is a type of personal computer made by:

मैक एक प्रकार का पर्सनल कंप्यूटर है जो निम्नलिखित द्वारा बनाया गया है:

A. Apple
B. Dell
C. Acer
D. HP

193. ___refers to unsolicited commercial emails that flood the Internet.

___ का तात्पर्य उन अवांछित वाणिज्यिक ई-मेल से है जो इंटरनेट पर बहुतायत में आते हैं।

A. Spyware
B. Trojan Horse
C. Malware
D. Spam

194. Who invented HTML in 1990?

1990 में HTML का आविष्कार किसने किया?

A. Tim Berners-Lee
B. David Noble
C. Kane Kramer
D. Niklaus Wirth

195. A hard disk is an example of which type of data storage device?

हार्ड डिस्क किस प्रकार के डेटा भंडारण उपकरण का उदाहरण है?

A. Tertiary storage
B. Primary storage
C. Secondary storage
D. Off-line storage

196. A modem is connected to a:

एक मॉडेम किससे जुड़ा होता है:

A. mouse
B. monitor
C. phone line
D. mother board

modulator demodulator

Digital to Analogue and vice versa

197. Trojan Horse is a form of:

ट्रोजन हॉर्स इसका एक रूप है:

A. Virus attack
B. Service attack
C. Slammer worm
D. Melissa worm

198. Which of the following servers convert IP addresses to domain names?

निम्नलिखित में से कौन सा सर्वर आईपी पते को डोमेन नाम में परिवर्तित करता है?

A. Cloud Services
B. Email
C. P2P
D. DNS

199. Which of the following does NOT impact a computer's general performance?

निम्नलिखित में से कौन सा कंप्यूटर के सामान्य प्रदर्शन को प्रभावित नहीं करता है?

A. Size of the Graphics Card
B. CPU Speed
C. RAM Size
D. Hard Disc Speed

200. Select the option in which the words share the same relationship as that shared by the given pair of words.

Memory = RAM

उस विकल्प का चयन करें जिसमें शब्द उसी संबंध को साझा करते हैं जो दिए गए शब्दों के जोड़े द्वारा साझा किया गया है।

मेमोरी = RAM

A. Keyboard = Alphabets
B. Hard Disk = USB
C. CPU = Monitor
D. Printer = LaserJet

201. What is the full form of DHCP in networking system?

नेटवर्किंग सिस्टम में DHCP का पूर्ण रूप क्या है?

A. Dynamic Host Configuration Protocol
B. Data Host Control Panel
C. Dynamic Host Control Point
D. Display House Control Protocol

- Protocols:-

ARP – Address Resolution Protocol

GIGO – Garbage in Garbage out

202. ..... clicking on mouse selects the entire paragraph by default, while working with text document is MS Word.

एम एस वर्ड के टेक्स्ट डॉक्यूमेंट में काम करते समय माउस को ..... क्लिक करने पर यह डिफॉल्ट रूप से पूरे पैराग्राफ का चयन करता है ।

1. Alt + Single/Alt + सिंगल
2. Triple/ट्रिपल → select the word
3. Double / डबल
4. Single / सिंगल → current position of cursor

203. In MS-Excel F11 is the shortcut key for

MS-एक्सल में F11 निम्नलिखित के बराबर है

1. opening a document/डॉक्यूमेंट खोलना
2. inserting hyperlink/हाइपरलिंक इंसर्ट करना
3. help/हैल्प
4. creating a chart form the selected cell range / चयनित सेल रेंज से चार्ट सृजित करना

204. Using the 'Home Key' in Microsoft word, processor moves the cursor to the beginning of the.....

माइक्रोसाफ्ट वर्ड में 'होम की' का उपयोग करने से, प्रोसेसर कर्सर को..... के प्रारंभ में पहुंचा देता है -

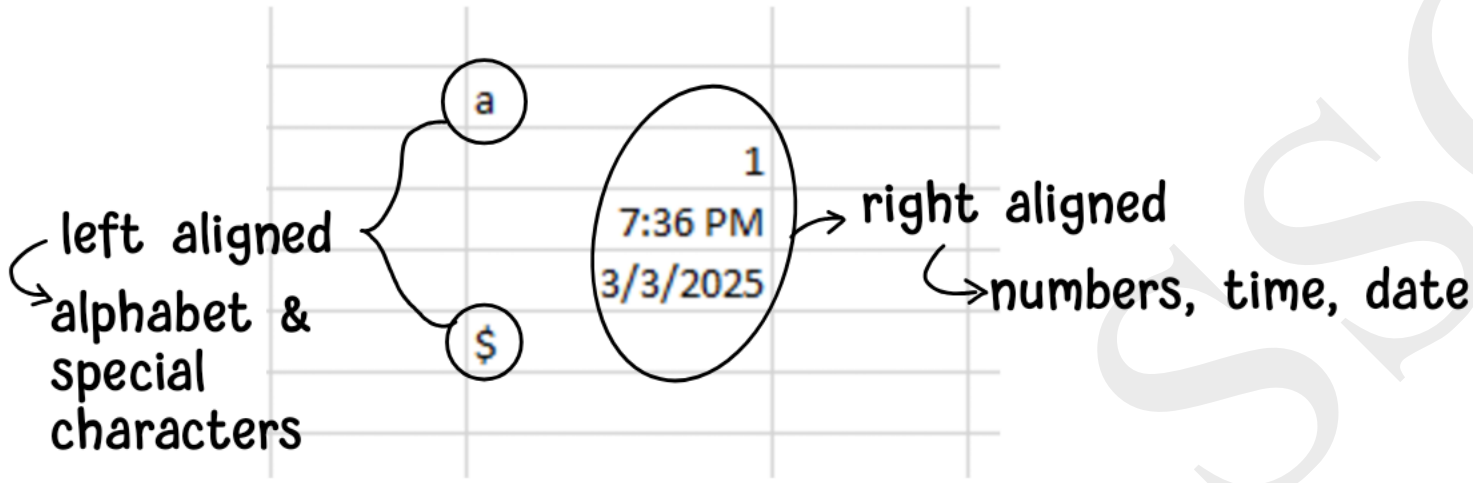
1. Page/पेज
2. file/फाइल
3. document/डाक्यूमेंट
4. line / लाइन

- End key -> to the end of line
- Ctrl + Home -> to the beginning of the document
- Ctrl + End -> to the end of the document

205. What is the default alignment of numbers in cells in an MS-Excel worksheet?

MS-Excel वर्कशीट की सेल में संख्याओं का डिफॉल्ट संरेखण क्या होता है?

1. Center
2. Left
3. Right
4. Justified



206. Which of the following cannot be part of an email address?

निम्नलिखित में से कौन सा एक ईमेल पते का हिस्सा नहीं हो सकता है?

1. Period (.)
2. AT sign (@)
3. Space ( )
4. Underscore (_)
5. Both 3 and 4

207. POP-3 is an email-related protocol. What does represent the numerical value "3" in POP-3 ?

POP-3 एक ईमेल-संबंधित प्रोटोकॉल है। POP-3 में संख्यात्मक मान "3" क्या दर्शाता है?

1. POP का हैडर आकार // Header size of POP
2. POP में करैक्टरों की संख्या // Number of characters in POP
3. POP में कोड की संख्या // Number of codes in POP
4. POP का संस्करण // Version of POP

Post Office Protocol
used to receive the mails

208. Which of the following shortcut key is similar to CTRL + S to save an open file in MS word?

निम्नलिखित में से कौन सा की शार्टकट , MS word में एक खुली फाइल को सेव करने के लिए CTRL + S के समान होता है?

1. Ctrl + F5
2. F5
3. Ctrl + F12
4. Shift + F12

find & replace dialog box
save
opens 'open' dialog box
Restore window size of the selected workbook window

save
- f12 – Save as

209. In MS Word 2010, the shortcut key used to list bullets is _____ .

एमएस वर्ड 2010 में बुलेट्स को सूचीबद्ध करने के लिए प्रयुक्त शॉर्टकट कुंजी _____ है।

1. Ctrl + P → Undo
2. Ctrl + Z
3. Shift + F3 → change case
4. Ctrl + Shift + L

UPPER CASE, lower case, Sentence case, tOGGLE cASE, Capitalise Each Word

210. Which of the following mouse clicks can be used to select a word in Ms word?

Ms word में किसी शब्द का चयन करने के लिए निम्नलिखित में से किस माउस क्लिक का उपयोग किया जा सकता है?

1. Triple left click // ट्रिपल लेफ्ट क्लिक
2. Single left click // सिंगल लेफ्ट क्लिक
3. Double left Click // डबल लेफ्ट क्लिक
4. Single Right click // सिंगल राइट क्लिक

211. What is the address of the cell at the point of intersection of the 7th row and the 10th column in an MS Excel worksheet?

MS Excel वर्कशीट में सातवीं पक्ति और दसवें स्तंभ के प्रतिच्छदन बिंदु पर स्थित सेल का एड्रेस क्या होता है?

1. $J7$
2. J7
3. 7J
4. G10

• Address of a cell – ColumnRow (alphabet → numbers)

212. Which of the following is not a valid email address?

निम्नलिखित में से कौन एक वैध ईमेल एड्रेस नहीं है?

(a) rekha@menon@gmail.com
(b) Chitralekha_123@vikas.in
(c) NARASIMHA@OUTLOOK.COM
(d) Aniruddha.Banerjee@ms.in

213. Unsolicited and unwanted junk email sent out in bulk to an indiscriminate recipient list is stored in _____ folder.

अंधाधुंध प्राप्तकर्ता सूची में थोक में भेजे गए अवांछित और अवांछित जंक ईमेल को _____ फ़ोल्डर में संग्रहीत किया जाता है।

1. inbox → Received mails
2. draft → incomplete mails
3. spam
4. trash → deleted mails

214. Which of the following keyboard shortcuts can be used to insert a hyperlink in an MS word document?

एक MS word डॉक्यूमेंट में हाइपरलिंक डालने के लिए निम्नलिखित में से किस की-बोर्ड शार्टकट का उपयोग किया जा सकता है?

1. Alt + H
2. Ctrl + K
3. Ctrl + D → open font dialog box in MS Word
4. Alt + L

215. What is the shortcut /hide ribbon bar in Microsoft Excel 2016?

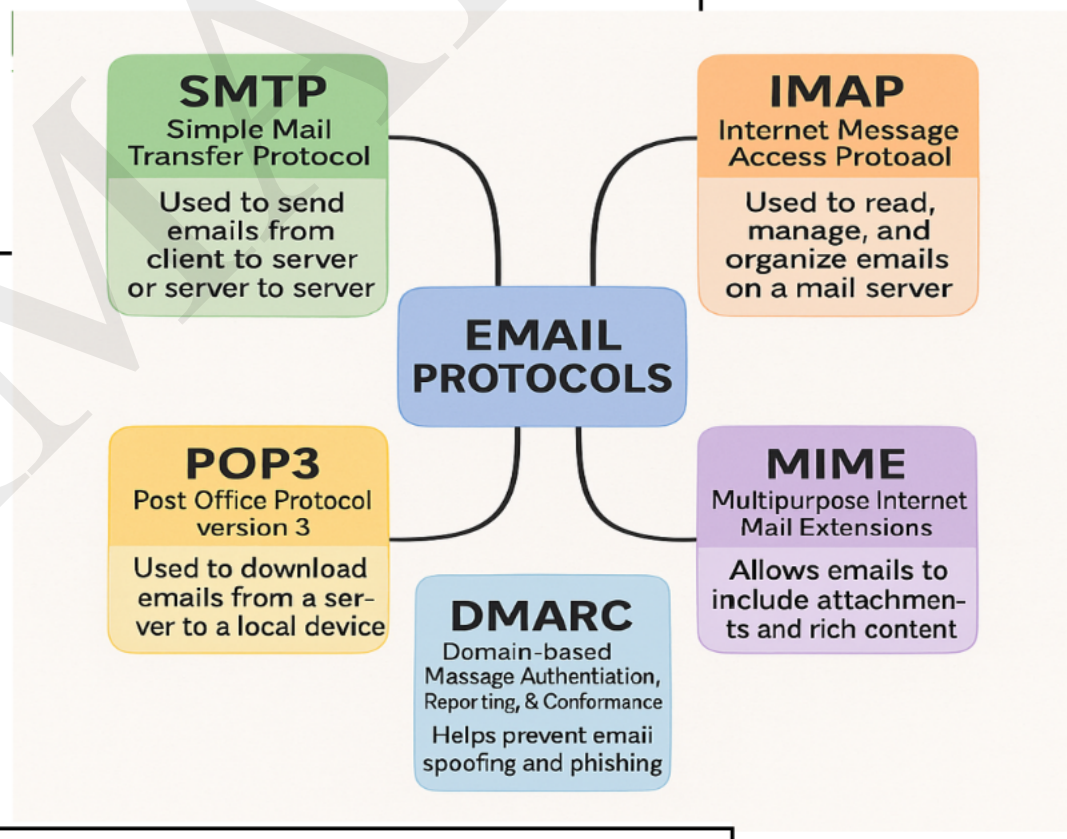
Microsoft Excel 2016 में रिबन बार छुपाने / दर्शाने के लिए कौन सी शॉर्टकट की है?

(a) F1 → help
(b) Ctrl + F1
(c) Shift + F1 → Reveal formatting
(d) Ctrl + F2 → Print Preview

216. A simple protocol used for fetching e-mail from a mail box is:

मेल बॉक्स से ई-मेल लाने के लिए उपयोग किया जाने वाला एक सरल प्रोटोकॉल है:

1. IMAP
2. POP2
3. POP3
4. SMTP



217. Which of the following icon is used to add an attachment to an email?

ईमेल में अटैचमेंट जोड़ने के लिए निम्न में से किस आइकन का उपयोग किया जाता है?

1. paper clip icon → upto 25 MB in Gmail
2. emoji icon
3. Stationery icon
4. GIF icon

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218. What is the shortcut key to create a new folder in Windows operating system?
विंडोज ऑपरेटिंग सिस्टम में नया फोल्डर बनाने की शॉर्टकट कुंजी क्या है?

A. Ctrl + N → New document
B. Window key + R → open Run Dialog box
C. Ctrl + Shift + N
D. Alt + F4 → close the current open program

219. What is the primary function of the Control Panel in the Windows operating system?
A. To install antivirus software
B. To manage system settings and hardware configurations
C. To browse the internet
D. To open Microsoft Word

विंडोज ऑपरेटिंग सिस्टम में कंट्रोल पैनल का प्राथमिक कार्य क्या है?
A. एंटीवायरस सॉफ़्टवेयर इंस्टॉल करना
B. सिस्टम सेटिंग और हार्डवेयर कॉन्फ़िगरेशन प्रबंधित करना
C. इंटरनेट ब्राउज़ करना
D. माइक्रोसॉफ्ट वर्ड खोलना

- To open control panel:–

Press # + R –> Run dialog box opened –> Type Control –> Press Enter

220. What happens when you delete a file using Shift + Delete?
A. It goes to Recycle Bin
B. It gets compressed
C. It is permanently deleted (bypassing Recycle Bin)
D. It is backed up

जब आप Shift + Delete का उपयोग करके कोई फ़ाइल हटाते हैं तो क्या होता है?
A. यह रीसायकल बिन में चली जाती है
B. यह संपीड़ित हो जाती है
C. यह स्थायी रूप से हटा दी जाती है (रीसायकल बिन को बायपास करते हुए)
D. इसका बैकअप ले लिया जाता है

221. Which shortcut key is used to select an entire row in Microsoft Excel?

माइक्रोसॉफ्ट एक्सेल में संपूर्ण पंक्ति का चयन करने के लिए किस शॉर्टकट कुंजी का उपयोग किया जाता है?

A. Ctrl + A → select all text in document
B. Shift + Spacebar → to select entire column
C. Ctrl + Spacebar
D. Ctrl + Shift + Spaebar → to select entire sheet

222. The first mechanical computer designed by Charles Babbage was called?

चार्ल्स बैबेज द्वारा डिजाइन किया गया पहला मैकेनिकल कंप्यूटर क्या कहलाता था?

also prepared difference engine

1. Abacus
2. Analytical Engine
3. Calculator
4. Central processing unit (CPU)

223. WLL stands for?

WLL का मतलब क्या है?

(a) Walking land line
(b) Walking Loop line
(c) Wireless land line
(d) Wireless in local loop

224. Who invented Logarithms?

लघुगणक का आविष्कार किसने किया?

(a) Eden Snowden
(b) Larry Page
(c) Thomas Edison
(d) John Napier

225. DTP stands for?

डीटीपी का मतलब क्या है?

(a) Daily Text printing
(b) Desk top publishing
(c) Desk top printing
(d) Daily Text publishing

- Types of Communication:-

1. Simplex communication – unidirectional communication
   - one device only receives & another device only sends data
   - entire capacity of devices is used in transmission
   - Eg – Radio transmission, Keyboard to CPU, fire alarms Public Announcement systems
2. Half duplex communication – bidirectional
   - both devices can send kr receive data but not at the same time

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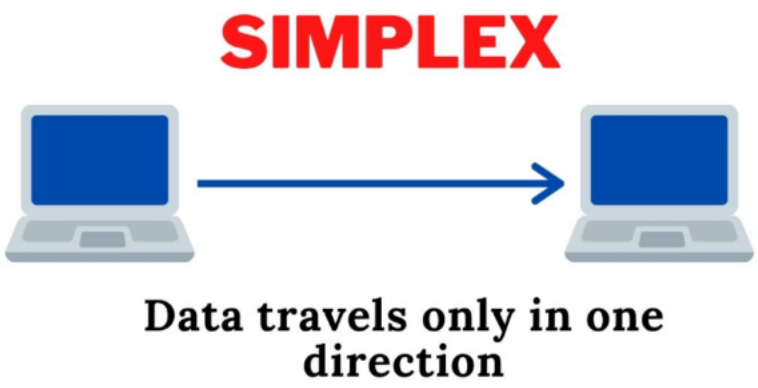
– when one is sending, the other is only receiving the data & vice versa

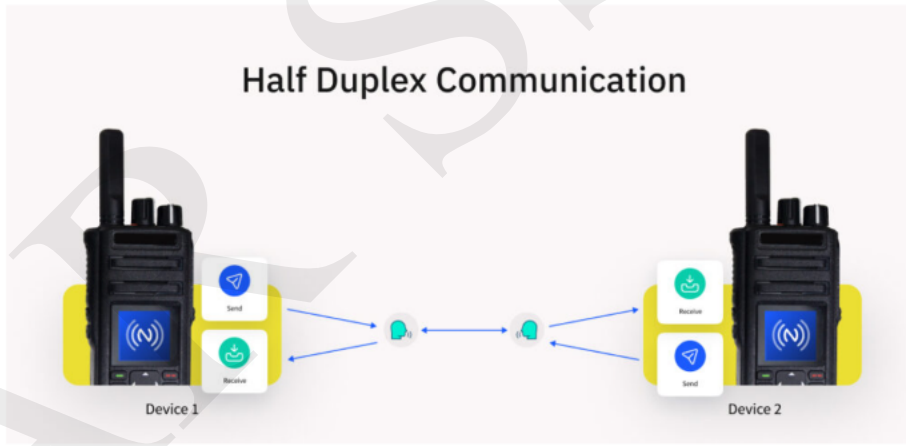
– Eg – Walkie Talkies

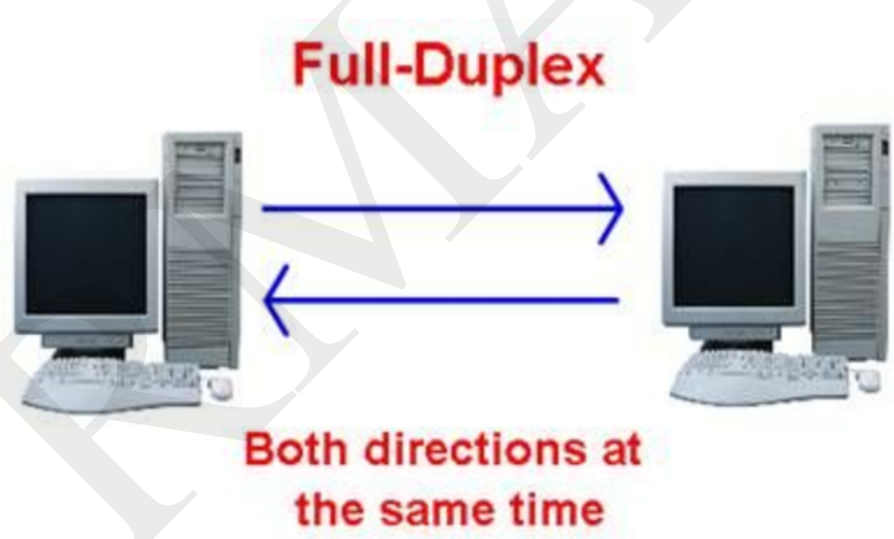
3. Full Duplex communication – bidirectional

– both devices can send & receive data at the same time

– Eg – Phone calls, video conferencing, zoom/ google meet calls Telephone landlines, online gaming chats







- UNIVAC – Universal Automatic Computer

  – 1st commercial computer

- Language C invented by –> Denis Ritchie

- Keyboard:–

  Modifier keys – shift, Alt, Ctrl, Windows key

  Toggle keys – Caps Lock, Num lock, Scroll lock

  functional keys – f1 to f12

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- Fastest memory :-

  Registers >> Cache memory

- Bold – Ctrl + B
- Italic – Ctrl + I
- Underline – Ctrl + U
- Spell check & Thesaurus are found in Review tab.
- Header & footer are found in Insert Tab.

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